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## ORIGINAL ARTICLES.

### MAJOR LESIONS OF THE GENITAL TRACT IN THE Puerperium.<sup>1</sup>

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SOME years ago I observed two cases of uterine rupture occurring during labor, both of which terminated fatally. In the first the rupture took place at the site of a large diphtheritic ulcer; the other was subsequent to a very difficult forceps extraction. During the past two years I have seen a remarkable number of complicated obstetric or puerperal conditions from which some instructive lessons may be drawn.

Grave lesions of the genital tract are not common. When they do occur, it seems impossible in most instances not to associate them with errors in technic on the part of the physician in charge. Spontaneous ruptures of the uterus are very rare, but in them, as a rule, there has been so marked a degeneration of the uterine tissues preceding the accident, from either a fatty or cancerous process, as to stamp them as eminently pathologic. In this paper normal uteri and normal pre-existing states are exclusively considered. The most difficult problem in midwifery, and one requiring the most discriminating judgment is to determine clearly and positively the indications for interference or non-interference. The former is too frequently postponed to such a time as to place elective and successful operations out of the question. When well-defined indications are present all hesitancy and fear should be banished and the necessary procedure instituted promptly and "with brains."

It is seldom that active interference is demanded on behalf of the child; it is the mother who requires our constant attention. When a dangerous condition is imminent, the signals are always present, and display themselves in aberrations of pulse and temperature. In extreme cases there is an acute, constant pain in the abdomen, not the alternating relaxing and contracting phenomena of labor, but a tetanic contraction which is so characteristic of one form of uterine exhaustion or irritability. It is a constant, dull, aching, boring pain. In still more severe cases the presence of the contraction ring may be noted, with a corresponding thinning of the en-

tire lower uterine segment, extending at times as high as the umbilicus. Again, by abdominal palpation the outlines of the child may be mapped out with alarming distinctness. These, in short, are the real urgent premonitory signs of true uterine exhaustion which, when exaggerated, become pathognomonic of uterine rupture. When a rise in temperature with a corresponding pulse-rate is present, or where the pulse becomes progressively more rapid, especially between the pains, the indications are to terminate the labor at once, always remembering not to endanger the integrity of the maternal parts by the interference.

If the os is not sufficiently dilated to permit of the application of forceps, manual dilation or the Dührssen operation should be performed. The field for the latter procedure is extremely limited, but when called for in urgent cases it can be rapidly and safely done. When rupture is threatened or has already occurred, there is certainly a distinct indication for its use. But it must be remembered, to make the operation a safe one, that the incisions should be complete from the cervicovaginal junction downward, neither more nor less, in order to fully dilate the os by artificial means.

While I am radically opposed in most cases to the use of the forceps when the head is above the pelvic brim (the so-called high-forceps operation), I see an indication in such threatened or already present uterine rupture for instrumental termination of the labor in preference to version. Under all other conditions and circumstances I prefer, in these cases, the latter operation. The fear of causing a rupture or increasing the extent of the tear is my only excuse for making these the exception. In the large number of the more exaggerated cases we can and do expect that the child has already been suffocated, and for this reason the perforator is the instrument of choice. When an impacted shoulder is a complication, it would seem preferable to at once detrunctate the head regardless of whether the child is dead or alive; since here, by performing a forced version, the mother is subjected to the most awful risk of either rupture or increasing the lesion already present. Under these conditions the chances are most decidedly against the birth of a living child. Here again, in weighing the chances between a forced version of an impacted, living baby and a Cæsarean section, it would appear that the chances for mother and

<sup>1</sup> Read before the Harlem Medical Association.

child will be best conserved by the latter operation. Where the child has wholly or in great part escaped into the peritoneal cavity, I think we are fully justified in at once subjecting the woman to a celiotomy, so as to not only remove the fetus, but to treat the uterine wound by suture, or in extensive lesions to extirpate the organ *lege artis*.

The first case presented is a typical example of uterine rupture in a woman pregnant for the second time and in labor forty-eight hours:

CASE I.—Stout, healthy woman, whose first labor had been short and normal. The labor began with good, hard pains, which continued twenty-four hours. In spite of an os fully dilated, the head rested quietly at the brim, apparently in a normal position. This patient was first seen by a physician who, while recognizing the fact that the woman could not deliver herself, advised delay, and this in the face of a rapid pulse and extreme suffering. Within another twenty-four hours she finally worried a dead baby into the world. At this time her temperature was 103° F.; pulse, 124; abdomen enormously distended. The placenta came away spontaneously. Shock was profound, and the condition went from bad to worse. She developed the symptoms of rapid and general sepsis, and within thirty-six hours all the evidences of an acute general peritonitis were present, with severe, continuous, and uncontrollable vomiting. When I saw the patient a few hours later she was completely collapsed; pulse, 150; temperature, 104° F.; intensely distended peritonitic abdomen. The fundus of the uterus could not be felt, and there was a foul-smelling discharge from the vagina. The history of the case made me at once suspect uterine rupture, and upon vaginal examination two fingers could be readily passed posteriorly through the inferior uterine segment and into the peritoneal cavity. The condition was apparently due to prolonged pressure by the head, subsequent sloughing, and final rupture. Active stimulation was the only treatment advised, and, as might be expected, the patient died within twelve hours.

The patient, the history of whose case has just been told, evidently possessed a normal pelvis; for she had previously given birth to a living child. The tardy labors were probably due to a malposition of the head, very likely an occipitoposterior position. There is very little doubt, had the physicians acted when premonitory symptoms presented themselves and delivered her at once, the case would probably have terminated differently; and yet, in spite of classic symptoms (temperature, rapid pulse, and agonizing pain) of grave exhaustion, this woman was left unaided, the physicians thinking that the physical disturbances were but momentary, and that as she had delivered herself once normally, she could do so again.

The next case is another example of uterine rupture, due to the application of the forceps when the

head was above the brim, the head being in a vicious position.

CASE II.—Mrs. M., whose previous labors had all been normal and of average duration. This, her fifth labor, continued longer than the other four together. The waters were early discharged, and the os slowly dilated under the influence of slow nagging pains. After many hours of fruitless effort, seeing that the labor would have to be terminated by artificial means, the physician in charge, while fully recognizing that the head was deflected and above the brim (really an ear presentation since this was the only part of the head to be readily made out), applied the forceps under deep chloroform narcosis. No sooner had the necessarily powerful traction been instituted, than the anesthetizer reported a rapid and flickering pulse. This was followed by instant collapse of the patient, associated with a very marked and rapidly increasing tympany of the abdomen. The child was born alive; placenta and membranes expressed. The collapse continued forty-eight hours, and the treatment, which consisted of saline injections and the administration of heart-tonics, was instituted under the impression that the case was one of heart failure from chloroform. About this time I was asked to see the patient and found the condition a desperate one. Shock profound; pulse rapid and hardly perceptible; temperature, 103° F.; foul lochia, and a very intense tympany of the abdomen. Here again the history was so suggestive that a presumptive diagnosis was made before examination. Exploration with the hand revealed a complete uterine rupture, a clean tear of the lower, right, uterine segment, extending into the corresponding broad ligament. The entire vagina and vulva were emphysematous. The uterus was washed with a physiologic salt-solution, preceded by the guarded use of a large blunt curette, avoiding as much as possible the neighborhood of the lesion. The entire rupture was tamponed with iodoform gauze, and active hypodermic stimulation advised. The patient died three hours after my visit.

This case is of great interest, and the lesson to be learned thereby of the greatest value. Was the physician in attendance justified in the use of the forceps in this case? It has been my contention that the application of forceps above the brim is very, very seldom justifiable. When the head fails to engage, there is always reason to suspect either a relative or absolute pelvic contraction, or what is more frequent, a malposition of the vertex, if this presents. For this reason it would seem advisable to perform version at once, since a malposition of the vertex can rarely be permanently rectified, and further it is easier to deliver the after-coming head following version, through a contracted pelvis than to complete delivery by the use of forceps when the opposite presentation obtains. Manual rectification of the head has been tried by many, especially in occipitoposterior positions of the vertex, and found wanting.

I have tried it on many occasions, and have almost always failed; because the causes originally producing the faulty position will, in the greater number of cases, reproduce it even after rectification has been complete. Again, it is my contention that when once the hand is in the uterus, attempting to correct a malposition, it is but one step further to do a version and at once terminate the labor, thereby performing what is a certain and positive procedure instead of one that is at best purely experimental and likely to fail.

In the case in question a pelvic contraction did not exist; as has been stated the pains were slow and nagging; there was early discharge of the waters, and a disinclination of the head to engage. I have always associated this symptom complex with, and very characteristic of, malpositions of the vertex, especially occipitoposterior positions, in the absence of a pelvic deformity, and in not a few cases a diagnosis of a posterior occiput has been made, even before examining the patient. In the face of these symptoms, the hand was introduced and the position of the head determined under chloroform narcosis. Since these symptoms were present, it was the duty of the attending physician by exploration to find out why the head failed to engage. He should have reached a positive conclusion as to the conditions present before applying the forceps. This is a "never to be forgotten rule." This woman would have stood a fair chance of recovery had a manual rectification of the head been accomplished, or what would have been still better, an internal version.

CASE III.—Multipara, whose previous labor had been normal. The pains began at 5 A.M., with a typical transverse presentation, one arm appearing in the vagina. Repeated, ineffectual attempts at version were made until about 3 P.M. the same day, without anesthetic and without result. Another attempt was made under chloroform by a different physician, who, upon realizing the gravity of the case, refused to persist, and I was asked to see the patient and found that two hands had already been delivered, and that the child was bent on itself, with the head and both feet on a level near the fundus. The child, of course, was dead. The uterus was moderately tetanic and a faint contraction ring evident; profuse hemorrhage; pulse, 80; temperature, apparently normal. Decapitation, on account of the position of fetus, was utterly out of the question, and as the fetus was not impacted, it was thought advisable to attempt version under deep chloroform narcosis. This was easily accomplished and the child delivered. At this time the family physician volunteered the statement that he had early that morning discovered a strange cavity with whose anatomy he was not familiar. This information came after I had completed the labor and found the entire vagina pulled away from the uterus through the cul-de-sac, and a corresponding hole in

the uterus at the cervicovaginal junction. This large hole allowed the entire hand to pass readily into the peritoneal cavity. After delivery the pulse was normal, and there were no symptoms of collapse. The uterus and peritoneal cavity were washed out with a physiologic salt-solution; the lower peritoneal cavity was tamponed with sterilized gauze. The patient was put to bed with good pulse, no hemorrhage, and in very good condition. On the sixth day, symptoms of general peritonitis appeared. The gauze was removed under chloroform, and the whole peritoneal cavity was found to be shut off by a broad area of fresh adhesions. A simple drain was introduced. The patient developed a well-marked general peritonitis, and succumbed within twenty-four hours.

This case requires no comment. But a word as to the method employed in delivering the patient: Because of the presence of a dead child, the treatment would seem to have been paradoxical. Decapitation was out of the question. Total embryotomy would have been such a prolonged operation that it seems to me that I was justified in performing a version. In the event of failure, on account of impaction of the fetus, Cesarean section would undoubtedly have been the operation indicated. Another fact worthy of mention is the normal pulse and temperature, and the absence of shock in the presence of so grave a lesion, which continued up to the time of the occurrence of the general peritonitis.

CASE IV.—Multipara; previous labors normal; two weeks before full term. She had not felt life during the five previous days, and she informed her physicians that her baby was probably dead. Os was rapidly and fully dilated; membranes were ruptured; waters badly colored and offensive escaped; head presented, but did not engage. Forceps were applied, traction made, and the physician found himself, head grasped by the forceps, on the floor. The head had parted from the trunk. The arms were pulled down, traction made, and they in turn were torn off. The sharp hook was then introduced deeply into the neck and chest, but as soon as traction was made it pulled through the fetal tissues and failed to deliver. When I saw the patient, at this time, she had been under chloroform about two and one-half hours. She looked very bad, and presented a rapid respiration and a rapid, flickering pulse. Having no instruments with me, version was readily accomplished, and traction on both legs combined with firm external pressure, delivered what remained of the fetus, but only after pulling off one of the legs. The placenta and membranes were removed. Examination revealed a tear of the vagina on the right side, extending from the cervix to the right pelvic wall through the broad ligament and into the peritoneal cavity. This evidently occurred when the sharp hook slipped, tearing not alone the fetal structures but the maternal tissues as well. The cavity was drained by means of gauze, and in spite of stimulation, the patient died within two hours.

CASE V.—Multipara; previous labors all very difficult; present labor very tedious, lasting nearly forty-eight hours; child macerated, pieces of skin being discharged. Head above the brim in the L. O. A. position. The physicians in charge did a version to terminate the labor. Traction was made by grasping both legs, which promptly parted from the trunk. At this stage I was asked to see the case. The pelvis was very small; the estimated true conjugate diameter could hardly have been more than two and one-half inches. An irregular mass presented at the pelvic inlet which evidently was the lower part of the abdomen, the pelvis and lower extremities having been torn away. On examination a piece of bony structure was found to be deeply imbedded in the uterine wall. The patient collapsed from the prolonged interference and chloroform narcosis. Evisceration and embryotomy were undertaken, the last of the fetal parts being removed only after one and one-half hours of very trying work. During one of the numerous attempts to dismember the child, a hole was torn in the posterior vaginal wall. The uterus and vagina were tamponed with sterilized towels. Regardless of stimulation the patient died from exhaustion within forty hours.

In the two cases, whose histories have just been related, forceps were applied in one, and in the other a version was performed, both measures being instituted in the presence of a dead and macerated fetus. Would not better results have been obtained had the heads been perforated at once? In the first case the head was torn from the body during an attempt to deliver; but had the skull been opened, thus diminishing its circumferences, less resistance would have been offered and the chances are that, with the cranioclast, delivery would not have been so complicated. In the second case, version should not have been done, since nothing could be gained by this operation; for there was present a dead baby and a very much contracted pelvis, a pelvis offering almost an absolute indication for Cæsarean section. Perforation is a very simple operation, and should, in my opinion, always be the operation of election in the presence of a dead child. It will certainly prove safer than a difficult forceps delivery or a forced version, with their attendant dangers to the mother. The plea may be offered by many that it is sometimes impossible, by auscultation, to certify as to the life or death of the child, and as embryotomy on the living child is considered by many to be unnecessary and reprehensible, it might hold good. But, to be certain, it should be remembered that the introduction of the hand into the uterus and direct palpation the cord will furnish the necessary evidence. Again, in the second case, when it was found that both legs were torn off, the physicians should not have persisted in their efforts; for a method occasionally used by the writer might have proved of material assistance

in delivering the rest of the baby. In cases of impacted breech with a dead baby, where, as it sometimes occurs, it is impossible to grasp a member to further delivery, I have employed the cranioclast, introduced into the rectum, taking a good bite of the sacrum and lower spinal column, and preceding the introduction of the instrument by enlarging the anal orifice by means of liberal incisions with scissors. In this way a good hold on the fetal body is obtained, which rarely fails to be efficacious.

CASE VI.—Primipara, with a normal pelvis, in labor twenty-four hours. When the first stage was completed, the forceps was applied, followed by delivery of a living child. I was requested (four hours *post-partum*) to sew up an ordinary perineal laceration. In trying to obtain a history of the case, the attending physician gave rather meager and confusing data. To my dismay, on examination, although the condition of the patient was excellent, there was a complete tear of the vagina and rectum extending as far as the eye could see and the finger reach. Having nothing better with me, I employed both hands as a speculum in order to separate the walls of this great cavity. There appeared to be gut at the bottom of Douglas' cul-de-sac, prolapsing slightly into the vagina. The parts were thoroughly washed with a 1-10,000 bichlorid solution, and being unable to apply sutures at this depth, the upper part of the vagina was snugly tamponed with gauze to protect the gut. The vagina and rectum were sutured with catgut, and the anus and perineum with silk-worm gut. The gauze was removed on the fourth day, and the stitches on the tenth. At this time union was almost perfect, and the patient recovered after a practically normal convalescence.

What caused this terrible lesion I am not in a position to state positively. I could glean nothing from the family physician, who evidently knew more than he wished to tell. It is safe to assume that, the patient being a primapara with a normal pelvis, the presenting head would engage; and, again, that the head was in a normal anterior position was positively proven by the presence of a well-marked *caput* situated well back over the parietal bone. Both these statements fairly show that forceps was not applied to the head above the brim. By carefully weighing all the factors in the case, it can at least be safely assumed that the lacerations were either due to a forcible and unwarranted effort in the introduction of one of the blades, or else to a slipping of the instrument from misdirected traction. As to the first presumptive cause, direct perforation by one or the other blade, the lesion would appear to have been too extensive to be thus explained; for under such circumstances patients have presented a simple, almost clean-cut wound, situated, in the majority, high up in the cul-de-sac, and showing exactly where the perforation from the blade occurred. It is safe to

state that when much force is required to introduce one or the other blades of the forceps, something is radically wrong, providing the attempt to apply this instrument is correctly made. But occasionally a case is seen in which it is impossible to introduce the first blade except by means of brutal efforts. Such force should not be persisted in, and in the several cases coming under the observation of the writer he considers it in order and perfectly legitimate to reverse the introduction of the blades, applying the right blade first and then the left. These inverted manipulations (the application of the left blade after the right one) give no further trouble, and the forceps not only hold, but delivery is readily accomplished. The locking of the blades is easily performed by either applying the left blade underneath the right or else by applying it above and gently crossing the handles after both blades are in place. The probable cause of the laceration in the instance under consideration most likely was the slipping of the instrument from faulty axis traction. It is a very common experience, when the family physician undertakes to deliver such a case, to note that in the majority of such operations, no matter where the head is located, traction is almost invariably made too far forward. This is a very common error. In teaching post-graduates the use and application of the forceps, the writer has seldom met the man who does not make direct forward traction, even though the head be above the brim. This faulty manipulation always predisposes to slipping of the blades, and the operator may consider himself lucky if serious lesions do not result. I hold that traction can never be made too far backward, for if the head does not follow such traction, the direction of the blades may always be gradually modified so as to bring the traction a little further forward each time. If the attending physician is at a loss to know exactly in what direction to institute the traction, apply the blades, without chloroform, and let the woman have several pains; then note the direction which Nature causes the handles of the instrument to assume. This proves the proper axis of traction, and can be at once and safely followed. The ideal forceps operation today is performed with the typical axis traction instrument. The direction of correct traction is indicated by the handles of this almost intelligent instrument. But the objections to its use are cost, and, what is more important, in inexpert hands it is as dangerous as it is safe and strength-saving in those of the expert. Another frequent cause of slipping of the instrument is the presence of a large head or the grasping of an average-sized one by its longest diameter. When one pair of forceps slips it is folly to repeatedly attempt the application of different varieties of the

instrument, for when one forceps holds it is safe to assume that all will. It is only necessary to apply the blades to another diameter of the fetal skull, and when the forceps still continues to slip something is radically wrong, and other measures are certainly indicated.

#### THE THYROID-GLAND TREATMENT OF CRETINISM, WITH REPORT OF A CASE.<sup>1</sup>

By SAMUEL H. FRIEND, M.D.,  
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CRETINISM, myxedema, and other diseases allied to abnormalities of the thyroid gland have received such carefully detailed attention since the results of the work of Gull, Schiff, Ord, Reverdin, Kocher, Bircher, and Horsley were made known, that the time seems fitting to draw absolute conclusions as to the physiologic function of the gland and to interpret the far-reaching physical effects caused by its disease or absence, and, at the same time, to indicate the range of the specific therapeutic application of thyroid treatment. The following report of a case of cretinism I trust may lend assistance in the interpretation of this curious disease:

H. G., female, aged fourteen years, was admitted to the Milwaukee County Hospital and came under my care during November, 1893.<sup>2</sup> She was the second youngest of ten children. The moral as well as the physical family history was extremely bad. One sister of the patient had died at the age of twenty-five years from pulmonary tuberculosis.

The child presented the usual picture of an extreme type of cretinism, there being almost entire absence of special functional development. The anterior fontanel was widely open, and there was curvature of the spine. The bones of the upper and lower extremities were enlarged and thickened at their epiphyseal ends. Knee-jerk, though much diminished, was present. The prick of a pin failed to elicit sensation of pain. Internal strabismus was pronounced, but the pupils reacted equally and normally to light. Attraction for color was the only indication that sight was present. The voice was harsh and guttural, though at times high-pitched. The presence of the sense of hearing could not be absolutely defined, and the same was true of that of smell. Taste was present, as indicated by the refusal to partake of certain foods. The power of speech was absent, and the patient was unable to sit or stand erect. Arm and leg movements were very limited in extent.

The bridge of the nose was flattened, the soft parts being broad and spreading. The palpebral fissures were slit-like, the chin receded, and the upper lip protruded. Measurements taken at this time were as follows: Glabella to occipital protuberance, 29 cm.; from center of one external auditory meatus, over the vortex, to the opposite one, 31.5 cm.;

<sup>1</sup> Read at a meeting of the Wisconsin State Medical Society.

<sup>2</sup> I am indebted to Miss Louise R. King, Superintendent of the Children's Hospital, for many important details of the clinical history.

greatest circumference of head, 50.7 cm.; circumference of neck, 27.5 cm.; of thorax at nipple line, 54 cm.; of abdomen through umbilicus, 52 cm.

The hair of the head was very thin, coarse in quality, and of a dirty yellow color. There was no hair on the pubes. The skin over the entire body was of a chalky-white color, very dry, and that covering the hands and feet was puffed and shining. The tongue appeared to be too large for the mouth, and was almost constantly visible. There was an uninterrupted dribbling of saliva. The roof of the mouth was deeply arched, and the twelve teeth present were discolored and worn down to the level of the gums. The patient's bowels moved once daily, the feces being formed and of a normal color. The kidneys acted freely, but the urine was passed involuntarily, and none could be obtained for examination.

During April, 1894, the administration of thyroid-gland extract was begun, and immediately a marked change in the condition of the patient was noticeable. Her intelligence improved, she became more observant, the anterior fontanel gradually began to close, the voice changed, and there was a decrease of the puffiness about the eyes and of the forehead. One day, six weeks later, I was summoned to the hospital by the resident physician, who reported that the child was dying. I found her temperature to be 104° F., pulse 160, and respirations from 40 to 50 per minute. As no symptoms indicative of any special complication were present, and as the thyroid extract had been given in 5-grain doses three times a day, I concluded she was suffering from thyroïdism, and at once ordered the administration of the drug to be discontinued. A few days later she was removed from the hospital by her mother and taken home—two rooms in an indescribably filthy condition, which the woman occupied in common with an adult son and daughter and three negroes.

The child's temperature, pulse, and respiration continued abnormally high during about three weeks, and on July 13th I had her removed to the Children's Hospital. During the ten days subsequent to her admission her condition remained about the same, and then her temperature gradually subsided. The only treatment prescribed until August 14th was a warm bath every morning before breakfast, the administration of cod-liver oil thrice daily, and a full diet. Under this regimen she gained three pounds in weight, registering thirty pounds on the last-named date. At times her mental condition appeared to have improved. On August 14th, her temperature then being 98.2° F., and pulse 108, the former treatment was resumed, 2 grains of the thyroid extract divided into three doses being given daily. The dose was gradually increased, with remissions of the treatment during seven days every fourth week, until on October 22d she was taking 2½ grains of the extract three times a day. Her weight at this time varied between thirty and thirty-two pounds. From August 14th to October 15th her temperature varied between 98.2° and 100.4° F., and her pulse between 102 and 114. During this period she was very restless and cried a great deal, but her general

improvement was marked. Her voice was less shrill, memory and sense of association appeared to improve, her hair became of a finer quality, the puffiness of the skin disappeared, and the anterior fontanel almost closed. One of the most striking changes observed was in the shape of the forehead, for, whereas formerly it had terminated at a slightly obtuse angle at the junction of the skin and scalp, it now assumed a perfectly rounded form. This, of course, was due to the closure of the fontanel.

On October 4th the first signs of menstruation were noticed, good-sized clots being passed, and this continued during four days. As the patient still cried almost incessantly, I had her teeth extracted. They apparently belonged to the first dentition, although on account of their length (from 1 to 1.5 cm.) they resembled the second growth. Two weeks later, seven new teeth made their appearance almost simultaneously in the upper jaw and nine in the lower. During this time the patient was very nervous and fretful. From October 28th until November 19th the thyroid treatment was discontinued and cod-liver oil substituted. Her weight during this period increased each week, and on the last-mentioned date she weighed 31½ pounds. She menstruated again on November 8th, the flow continuing until the 14th. On the 19th she began taking 1 grain of the thyroid extract three times a day, and on the 22d the dose was increased to 1½ grains; but as the bowels moved too freely on the 24th its administration was stopped.

From August 14th to November 30th the patient had taken, in all, 431 grains of the drug. From October 22d to November 30th the improved physical condition was marked by entire closure of the anterior fontanel, an increased quantity and finer grade of hair, an absence of all puffiness of the skin, absence of salivary dribbling and protrusion of the tongue, the appearance of sixteen teeth, and of menstrual flow, development of stronger imitative faculties, and by attempts at forming distinct sounds. Mental association and accommodation remained in an infantile stage of development. Urine continued to be passed involuntarily, but after considerable difficulty an ounce of the fluid was secured and analyzed. It was neutral in reaction and indicated nothing worthy of note. A count of the blood-corpuscles at this time revealed 3,500,000 of the red cells and a large number of leucocytes to the millimeter.

On November 25th accurate measurements were again made, and resulted as follows: Glabella to occiput, 35.5 cm.; from the center of one auditory meatus to the other, 32 cm.; greatest circumference of head, 52.5 cm.; circumference of neck, 25 cm.; of thorax at nipple line, 53 cm.; of abdomen at level of umbilicus, 54 cm.; length of body, 84 cm. A comparative study of these figures and those obtained before treatment was begun indicates an increase in the measurements of the head, abdomen, and body-length, and a decrease in those of the neck and thorax.

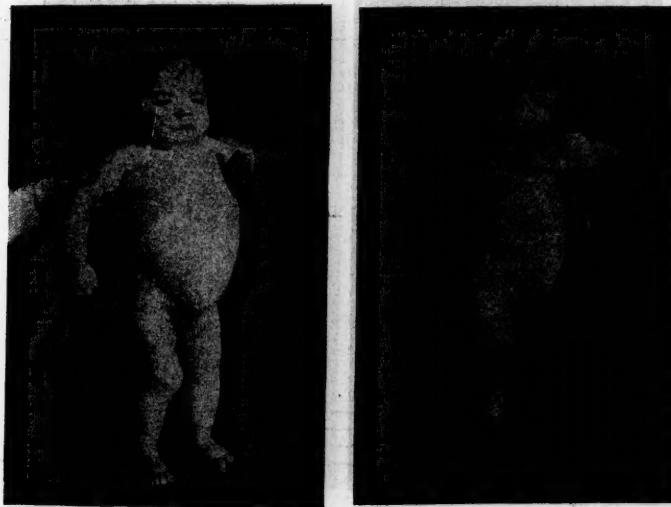
During December, 1894, and up to August 1, 1895,

the following observations were made: Eight hundred and ninety-four grains of thyroid extract was taken, an average of less than four grains daily, and every fourth week its administration was interrupted for a period of seven days. A teaspoonful of cod-liver oil was given twice daily during all this time, and a plunge-bath, lasting ten seconds, in water at  $70^{\circ}$  F., each morning before breakfast. I had observed that the patient had made a distinct mental gain whenever the administration of the thyroid extract was pushed to its physiologic limit, and, therefore, during the months of May and July I increased the doses gradually until she was taking from  $3\frac{1}{2}$  to 4 grains three times a day. Six ounces of milk was given every two hours. This increase was maintained during twelve days in May and ten days in July. During these two months, and also during June, sys-

marked progressive improvement, the bones appearing firmer and the teeth large and fully developed.

The mental change during the first of these months was hardly perceptible, although the patient was placed in the same room with other children in order to stimulate her imitative faculties. During the latter part of the period, however, the improvement was marked, probably as a result of the medication and gymnastic treatment. She became more observant and at times indicated that hearing and association and projection were more acute, although this improvement was not progressive. More marked was the development of associated action, as, through observation of the other children she learned to grasp a chair and stand by it, and to sit up in bed. The arms and hands became more useful members, and while lying in bed she developed the habit of lifting

FIG. 1.



Cretinism. Child aged fourteen years. Before treatment was begun.

tematic extension of the entire body was made, lasting five minutes at first, and, finally, increasing the time to one hour, combined with manipulation of the joints. Her weight remained practically at thirty pounds, although it occasionally varied from half a pound to a pound each way. Her highest temperature at any time was  $100^{\circ}$  F., her pulse ranged between 74 and 112, and her respirations between 20 and 30. The blood count was the same as before. Her physical condition improved in every way. During December she had an attack of diarrhea, which lasted two days, but the appetite and digestive processes were good throughout the entire period. She menstruated in December, February, April, and May, the flow being scanty but continuing three days during the first two months named and two days during the latter. The osseous system showed a

one leg. The only abnormal nervous manifestation observed during the latter months was the sudden occurrence of paroxysms of hysteria during the day or night, in the latter case the child awakening from a sound sleep and laughing, crying, and thrashing about the bed. These attacks lasted from fifteen minutes to an hour, and occurred at irregular intervals, at times every third or fourth day, and again every day during three or four days. They continued during May, June, and July, and then all at once ceased. The administration or withholding of the thyroid extract had no effect upon them. On July 19, 1895, the patient had gained 4.5 cm. in height since the preceding November.

The third period of treatment dated from August 1, 1895, to January 22, 1896. During this time she was given 879 grains of thyroid extract, an average

of 5 grains per day. The administration of cod-liver oil morning and afternoon was continued, as was the daily bath. Massage and gymnastic exercises were not persisted in as she became too restless under the treatment. She was placed on the floor of the ward so that she might play with the other children, this being the only change in her environment. Her weight continued to vary, on August 5th being 29 pounds, and on December 30th 37½ pounds. Her pulse ranged between 80 and 120, and temperature between 97° and 104.2° F. The blood count was the same as before.

Nothing worthy of note was observed during this period except a very slow improvement mentally and a much more marked one physically. During the evening of January 20th, her temperature suddenly rose to 104° F., her pulse to 160, and respiration

pubic symphysis demonstrated the presence of underlying adipose tissue of the thickness of 1 cm. Upon removing the sternum the thymus gland was found. It was attached to the subclavian artery on the right side, to the tissues surrounding the aorta on the left side, and in the median line to the deep fascia covering the trachea. It measured 10.5 cm. in length and 9.5 cm. in width, the left lobe being 1.8 cm. thick, the right lobe 2.3 cm., and the superior and inferior lobe each .5 cm. It weighed 64 grains. Small glands studded the entire pleura. The organ covered the anterior pleura from the suprasternal notch almost to the ensiform cartilage, the smaller glands being of the average size of a dime.

Nothing abnormal was found in the pericardial sac or heart. There were a few hard nodules, varying in size from a millet-seed to a kernel of wheat, in the

FIG. 2.



Cretinism. After eight-months' treatment.

became so short and quick that it was only with difficulty they could be counted. At this time she was taking 6 grains of thyroid extract daily. Medication was immediately stopped, but her condition remained the same, with one remission of temperature and pulse-rate, during two days, when, on January 22d, at one o'clock in the afternoon, she died.

A *post-mortem* examination was made four hours later, of which the following is a summary: Body fairly well nourished, presenting nothing of special interest externally. Weight, 35 pounds. Height, 105 cm. Cadaveric discoloration of the neck and back. A careful dissection around the trachea failed to reveal the thyroid gland. On the left side of the cricoid cartilage was found a pear-shaped gland, 2.5 cm. in length, 1.2 cm. thick, and 2 cm. wide, which, on section, presented the appearance of an enlarged lymph-gland. An incision from the chin to the

apices and bases of the lungs; otherwise these organs were normal. The spleen measured 8 cm. in length, 4.5 cm. in width, and 2 cm. in thickness, and was perfectly normal in color and structure. The pancreas, stomach, intestines, and liver were normal, the latter organ measuring 18 cm. transversely, 13 cm. anteroposteriorly, and 5 cm. from above downward. The suprarenal capsules showed no abnormalities. The left kidney was normal. It measured 9 cm. in length, 5 cm. in width, and 4 cm. in thickness. It was soft, and the capsule was non-adherent. The right kidney was found lying in the space made by the curvature of the spine, which began at the seventh dorsal vertebra and carried the entire structure to the right (see Fig. 3) so that the distance between the twelfth dorsal vertebra and tenth rib on the right side was 2.5 cm., that between the end of the eleventh rib and middle of the crest of the ilium

being 7 cm. on the right side and 3 cm. on the left. The kidney was in contact with the crest of the ilium, and conformed to the shape of the cavity, being 10 cm. long, 5 cm. wide, and 4.5 cm. thick.

The bladder presented an interesting pathologic condition. Its walls were much thickened, the anterior wall being 1 cm. in thickness and the posterior .5 cm. The capacity of the cavity was one-half ounce. Embedded in the wall above the ureteral openings was a calculus about the size of a dime. The uterus was of infantile size. The ovaries were small, but contained normal ovarian tissue, and in one of them was found an ovum.

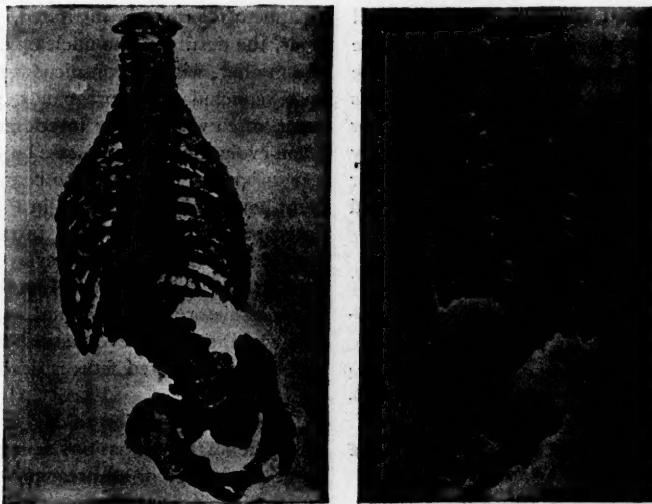
Upon opening the calvarium the dura was found to be thickened and firmly adherent throughout its entire extent to the bone. Extending from 1 to 1.5 cm. on each side of the longitudinal sinus was a deep-

sulcus, as well as of other tissues throughout the body, merely showed an excess of fibroid growth in all.

A study of this case strikingly illustrates the place occupied by the thyroid gland in the physiology of man, as well as the therapeutic application and limitation of its extract. Structurally, there was present in this patient, an increased thickness of the skin, softening and inhibited growth of the bones, with a compensatory enlargement after coordination was produced, and dwarfism.

As a result of the knowledge obtained by the study of the cases reported, it is evident that structural changes and their cause may be classified under the following headings:

FIG. 3.



Showing curvature of spine in cretin aged fourteen years (soft tissues eaten away by mice).

red discoloration of the membrane from which bloody fluid exuded. Nothing of interest was observed in connection with the pia mater. The gray and white matter of the brain was of normal consistence. About two ounces of bloody fluid was found in the lateral and fourth ventricles. The convolutions were flat and the sulci very shallow. The weight of the brain was 1456 grains. As I desired to preserve it for future microscopic examination, sections were not made. The pituitary body was .8 cm. wide, .7 cm. long, and .3 cm. thick, and weighed 2 grains.

An examination of the marrow of all the bones revealed nothing but the red variety. A microscopic examination of the pear-shaped gland found in the thyroid location revealed nothing but hypertrophied and hyperplastic lymph-cells. A like study of the pituitary body, thymus gland, and suprarenal cap-

1. Congenital absence, diminution in size, or acquired atrophy of the thyroid gland results in myxomatous thickening of the skin, persistence and enlargement of the thymus gland, hypertrophy and hyperplasia of the lymph-glands, changed structure and retarded development of the entire osseous system, and dwarfism. Functionally, there is mental apathy and lack of development, retarded and deficient motor- and sensory-nerve mechanism, and manifold incoordinations and muscular retrogression.

2. Acute disease of the thyroid gland results in softening and retarded development of the osseous system, and anemia, producing a condition which retards absorption and excretion in the stomach and intestines, bronchitis, and abnormal nervous manifestations.

3. Chronic disease of the thyroid predisposes to malignant, adenoid, and cystic growths, and microbial diseases.

4. Hypertrophy and hyperplastic excess of thyroid structure, as shown by Mobius and Greenfield, and by Horsley, results in exophthalmic goiter or Graves' disease.

To recapitulate: Anatomic, physiologic, therapeutic, and pathologic evidence predominates in indicating that the thyroid gland directly controls the coordinate growth and development of the entire organism; that this evidence suggests that the diseases of the gland are limited by the absence, diminution, or excess of special gland structure, and by changes in the gland secretions and excretions, resulting in the production of cretinism, rickets, and exophthalmic goiter; that the skin and thymus gland attempt above all others to compensate for the absence of the thyroid function, and that structural and functional diseases of the bones are directly caused by disease of the gland; and that therapeutic application of the extract of the gland should be confined to conditions in which there is absence, diminution in size, or disease of the thyroid structure, as indicated by functional changes in the skin, sensory or motor nervous systems, structural changes in bones, and dwarfism.

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#### WHAT CONDITIONS INFLUENCE THE COURSE OF INFANTILE SYPHILIS?

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In order to take a comprehensive survey of the field covered by the above inquiry it is necessary to determine definitely what is to be understood by "Infantile Syphilis." The words, strictly interpreted, relate only to syphilis in infants. Restricting the discussion, however, to such a narrow division of the subject would mean an exclusion of some of the most important and interesting of the ascertained facts. It is desirable instead, to include under this general term (1) the phenomena of syphilis as displayed in intra-uterine life, syphilis of the products of conception, of the ovum, and of the fetus, (2) extra-uterine or hereditary syphilis in the infant, and, (3) acquired infantile syphilis, the disease as it affects otherwise healthy infants who suffer from what has been termed contact-syphilis.

The course of the *lues venerea* in the unborn products of conception is one which is often wholly uninfluenced not only by treatment but by external interrupting circumstances. In the acquired forms of the disease this is the exception rather than the rule; for in syphilis of the second generation the social condition of the infected progenitors is a factor of importance. Infantile syphilis is decidedly more common in hospital and dispensary patients, among the poor, the degraded, and the filthy than among the better classes who suffer equally with the others from the acquired disease. The educated, the wealthy, and the comfortably housed contract syphilis, it is true, but *after infection* secure appropriate treatment, and then, for the most part, refuse to marry or to procreate until there is a reasonable prospect of the birth of healthy children. If infection of the wife does occur and pregnancy follows, treatment is promptly instituted. In the case of the poor, the destitute, the uncleanly, and the ignorant, the mother, without conspicuous stigmata of the disease, concludes her pregnancy prematurely or at term, often without any interference with the complete evolution of the disease both in herself and in her offspring. It is well to bear in mind the errors most commonly committed in the effort to properly interpret the signs of this intra-uterine syphilis of uninterrupted course. Not every abortion, not every miscarriage of a pallid-faced mother whose husband gives a history of premarital infection, is necessarily syphilitic. Not every still-born child, and even, not every macerated fetus is dead in consequence of *lues venerea*.

There is no question to-day among the informed as to the fatal termination, as regards the fetus, in a large percentage of all pregnancies when the product of conception has been infected. This may be set down as one of the few irrefutable facts of syphilis. Waiving, for the moment, consideration of the question whether this mortality is conditioned upon an infection of either paternal or maternal origin, whether the placenta be or be not involved, whether the maternal infection, if such there has been, was ante- or post-conceptional, with a view to the determination of the present question, it should be asked, what percentage of pregnancies is concluded at term with the birth of a living child, and what percentage is prematurely terminated by abortion or miscarriage? The obstacles to a precise collation of the required data are simply insuperable. The best that may be made is an approximate estimate based upon the statistics of a group of careful observers such as Kassowitz, Lancereaux, Neumann, Coutts, Jullien, and Warner. These authors, it must be admitted for the most part, give figures which it is

difficult to compare by reason of the fact that they draw no hard and fast line at the date of the completion of pregnancy, but class together in the fatal issues of each, all instances of abortion, miscarriage, still-birth, and of children dead at or soon after birth, the limit last named being by one of these authors extended to six months. In 1700 syphilitic pregnancies, however, which it is possible to employ in studying the course of syphilis as it affects the fetus, the total number of abortions, miscarriages, and still-births amounts to 579. It follows that about one-third of all pregnancies of syphilitic women terminate by the death of the fetus before or at the completion of pregnancy. These are about the figures reached by a study of the statistics of Kassowitz. When they are added to those representing the mortality of the children born at term and surviving for variable periods, a clearer view may be obtained of the evolution of the disease in the second generation.

It has been the destiny of syphilis to be confounded with more maladies than any other single disease. Instances of the acquired form of *lues venerea* are daily assumed to belong to another category. Daily, also, are non-syphilitic affections diagnosed and treated on the assumption that they are of specific origin. It is as common to discover these errors in the inherited as in the acquired forms of the disease, and yet the possibility is often overlooked in accepting reports of cases and in the study of the literature of the subject. In view of these facts one is almost tempted to advance toward the extreme position lately taken by Parker who, certainly with proper appreciation of the dangerous errors committed in this connection, distinguishes between "inherited syphilis" and diseases "inherited from syphilis," demanding, in order to establish the fact of the former, that proof be given of the contagious character of the disease exhibited by the suspected infant. Not every child with Hutchinsonian teeth, with cranial bosses, with a natiform skull, or suffering from a rebellious affection, is the victim of inherited syphilis. Even the painstaking labors of a Parrot have not sufficed to obliterate the distinction between syphilis and rickets. The puny infant with coryza and eruptive symptoms about the mouth and anus may not be a source of infection for others. It would seem trivial to refer to such commonplace occurrences were there not a constant recurrence in the medical press of the blunders originating in the misinterpretation of these facts. Within the last six months, for example, one of our most extensively circulated medical journals of a high rank published a communication from an officer of an important State institution for the care of the insane, in which

it was held that four patients affected with general paralysis (*délire des grandeurs*) suffered from the disease as a consequence of the inheritance of syphilis; because in each instance there was no history of the acquired disease, and yet Hutchinsonian teeth were exhibited, the article being accompanied by illustrations of the teeth in question. Avoiding the possibilities of errors of this and a similar kind, a study of the facts of extra-uterine syphilis of the second generation, when collated from trustworthy sources, throws further light upon the natural evolution of the malady.

As the result of the 1700 pregnancies to which reference has been made, there were born 1121 living children of whom 956 died within the first twelve months. Of the remaining 165 children who chanced to survive a year nothing is known. It is, however, certain that they had not yet reached a stage of development when they could be regarded as exempt from the dangers which had destroyed so many of the others. The proportion of those succumbing later is unknown. The ascertained figures, then, representing the mortality affecting these 1700 products of conception both during and after pregnancy, are 1535, or nearly 95 per cent. of the total number. The estimates made by other competent observers vary between sixty and ninety per cent. of fatal issues when the data of intra-uterine life and those of infancy are combined. For the purpose of comparison I have collated the figures embodied in the histories of twenty-five syphilitic mothers resident in Chicago, consecutively recorded, as a result of whose forty-one pregnancies there were thirty-one abortions, miscarriages, and children dead at birth or within one year. One of these children unquestionably escaped infection. Of the fate of the nine survivors at the end of the year nothing is known. This points to a mortality of about eighty per cent. of all the products of conception. If these figures be accepted as trustworthy, it follows that the issue of syphilis as it is developed in the products of conception of diseased parents is comparable only with the gravest of the plagues and pestilences to which the human family is subject. Smallpox in infants is estimated to be followed by a mortality as high as ninety per cent. but great allowance should be made for the varying severity of different epidemics. Many of the formidable incursions of yellow fever and cholera spare a larger proportion of victims than survive the scourge which is the subject of this discussion. In point of fact one is at a loss to discover mortality statistics with which these may be justly compared, if recourse be not had to the progress of the plague in Europe during the Middle Ages.

Most of the text-books on syphilis are written for

the benefit of the practitioner and of the student who purposes one day to be a practical physician. As a consequence the chapters on hereditary syphilis contain many pages which are properly enough devoted to a description of the clinical and other symptoms of the disease as they occur in the meagre number of survivors of the malady, while but a few paragraphs are devoted to the enormous mass of pathologic facts which are to be gathered from a study of abortions and miscarriages in the syphilitic. Of the blighted germs and the macerated fetuses only a few are preserved among the morbid specimens of the medical museum, the great mass of which are swept with the sewage into the limbo of the unseen, to descend by retrogressive metamorphosis to the primary elements from which they were evolved. Having in view the number of clinical facts to which the figures cited above significantly point, one is in position to formulate an approximate answer to the question propounded, *viz.*, "What Conditions Influence the Course of Infantile Syphilis?"

*The Virus.*—Twenty years ago the word "virus" would probably have been defined as a secretion containing an animal poison; to-day the word is set down as equivalent to a pathogenic micro-organism; to-morrow it will be necessary to add the words "or its toxin." In the case of syphilis the germ and the toxin, if such there be, are as yet undemonstrated as efficient factors in the production of the disease. But no better working hypothesis is at hand than the general assumption that syphilis, with regard to its ultimate cause, is to be aligned with the other infectious granulomata, and is dependent upon an undiscovered bacterium, which, either by virtue of its presence or by the potency of its toxin, is capable of transmitting the disease. Does this virus of syphilis, recognized as effective in the second generation of its victims, differ in its energy according as it acknowledges a paternal or maternal origin in the first generation? Looking to the facts of inheritance in general, we can discover no preponderance of one sex over the other in the power to transmit disease. Inherited tuberculosis descends with equal destructiveness from father or mother. Syphilis offers no facts controverting such a position. That the energy of the virus is to a degree related to the activity of the disease in the progenitors is generally accepted. It is conceded that with both parents recently infected the chances of grave syphilis in the offspring are increased, that with one parent exhibiting the disease in marked activity, the dangers are greater than when the malady in the parent has waned, that the virus furnished after the production of a series of abortions and miscarriages is likely to be attenuated to the point of lessening

its activity and its capability of transmission, and lastly, that in almost every syphilis of the parents there are to be recognized periods, often alternating, of aggravation and of amelioration, transmissibility in these pauses of the disease being either greatly weakened or wholly lost. Even after due consideration of the appalling mortality which furnishes one of the chief symptoms in syphilis of the second generation, it is not to be forgotten that cases of mild inherited syphilis do occur, and that recovery, complete and satisfactory, follows in a small percentage of the patients.

*The Individual.*—Turning now from consideration of the virus, it is apparent at a glance that the individual product of conception in syphilis is practically deprived of the resources provided, in the great majority of all other patients, for resistance to the onset of the disease. The individual attacked with acquired syphilis is often assured of a sound ancestry, and of uninterrupted opportunity for nutrition and development prior to the date of his or her infection. In hereditary syphilis, on the contrary, the individual is poisoned *ab ovo* by the introduction of a pathogenic germ, either into the sperm-cell or ovule, or both, and at every point of subsequent evolution suffers from impaired nutrition and from a retardation of growth through the influence of a morbid process which is likely to invade every organ. Shall we then hasten to infer that in syphilis of the second generation the virus is wholly efficient and the individual absolutely helpless in influencing the course of the disease? It is, indeed, rare in the purview of nature that man is abandoned as an utterly unaided creature in the face of the encroachments of disease. Even an aortic aneurism may undergo calcification! In the case of infantile syphilis, when the odds are heavily against the survival of the remnant, an individual is provided with resistance by the force of whose interference the course of the disease is influenced to a remarkable degree. This is a fact the significance of which is apt to be overlooked, and the instructiveness of the result is of the highest importance in throwing light upon the two factors named in the subject of this discussion. The individual in this case is the mother who can offer to her child a breast filled with milk, a being at one time undivided from her child, a being really taking position as a separate individual only after the child is weaned. It is a well known fact that in some of the vertebrates the suckling at the mammary gland is often enclosed in a protective pouch where it exists in a fetal state for some time after extra-uterine existence has begun. The influence upon the mortality statistics of infantile syphilis of the nursing mother operating under the disad-

vantages of a cachexia which is shared by both parent and offspring, cannot be challenged. Several writers, such as Henoch,<sup>1</sup> claim that all infants affected with hereditary syphilis die if they are not suckled at the breast. Widerhofer<sup>2</sup> puts the percentage of such deaths in children artificially reared as high as ninety-nine per cent. Other observers conclude that between ten and twenty per cent. of infants affected with hereditary syphilis are either completely snatched from peril or enjoy prolongation of life in consequence of being nourished at the breast of the mother. On a field then, more thickly covered with a proportion of the dead and dying than any battle-ground of modern times, we find women stricken with the same dart which has destroyed the multitude, who succeed in snatching from destruction a calculable number of infected infants by simply providing them with breast-milk. This notable result is attained solely by virtue of improving the nutrition of the infant. We are therefore justified in somewhat qualifying the response to the categoric question which forms the subject of this debate. The virus is *not* solely efficient in influencing the course of infantile syphilis. The individual, in this case represented by the mother who is the food-supply of the helpless being, is capable of diminishing the mortality of the disease to the extent of saving between ten and twenty out of every hundred of infected children. If the mere fact of an improved nutrition can work this effect in the victim of hereditary syphilis, I will leave it to my distinguished colleague to estimate the value of the same factor in acquired disease. To ignore it would be as short sighted as it would be fatal to safe conclusions. The subject of late inherited syphilis, as it relates largely to the adult, is relegated to the gentleman to whom has been assigned the duty of reporting on that branch of the subject.\*

With respect to acquired infantile syphilis, it is gratifying to note that the disorder is far less common than is usually believed. Fournier has a record of but forty-two patients of this class coming under his observation, though he adds that he believes as many more have been seen by him in regard to which no notes were taken. I have a record of less than a score of cases in which there was no doubt respecting diagnosis. Five resulted from arm-to-arm vaccination; two from soiled instruments; two others were produced by the kisses of women whose lips were the seat of mucous patches; one infant was infected from the chancre of a male parent when the two occupied a bed in common; the other

eight occurred in families in which there were infected adults, but in which the mode of transmission is unknown. With two exceptions (one of the vaccination cases, another described more fully in this paper), all these were dispensary patients coming from the very lowest grade of society.

The most remarkable contrast is afforded by the statistics of recovery in this class of young subjects as compared with those suffering from inherited syphilis. Fournier states that all his cases resulted in recovery save in one instance, that of a child dying of cachectic pneumonia. With reference to the issue in the parents who have come under my personal observation, it can merely be set down that no one of the children is recorded to have died of the disease, though, as is well-known, American dispensary patients are remarkable for the ease with which they escape from observation and elude the compiler of statistics.

It is so rare that an infant acquires syphilis at the moment of birth, or almost immediately thereafter, that a study of even one such carefully observed case, when compared with that of a child affected with hereditary syphilis, possesses some interest:

A well-nourished infant, aged two and one-half months, of parents who were both wealthy and of good social position, was brought to me by the physician who had delivered the mother, himself a professor of obstetrics in one of our large medical schools. The child had a well-developed but lapsing initial sclerosis over the tip of the right ear (at the site of a wound inflicted by the obstetric forceps with which it had been brought into the world). It exhibited, also, accompanying adenopathy, and a brilliant macular exanthem. Mucous patches existed in the mouth, and the child had promptly infected its mother who exhibited a chancre of the nipple, with axillary adenopathy. The eruptive symptoms in the mother made their appearance in due time, in fact, after those of the child had quite disappeared. The father, who was absent from home months before and after the birth of the child, was carefully examined on his return, and was found to be even in unusually sound health, and denied prior venereal disease of every kind. The medical attendant was one of those brilliant and busy men to be found in all large cities, doing a great deal of work under an enormous pressure, and eventually dying under the strain of it. When privately taxed with the possibility of having used unclean instruments in this case, he could only say that he was in the habit of taking proper precautions. The nurse who had dressed the child after birth was examined and found free from evidences of disease.

The mother of this infant had been a delicate woman before marriage, and could give her child only deficient alimentation by the breast. It was necessary to resort in part to artificial feeding. A photograph of this child stripped naked, after it had

<sup>1</sup> Vorlesung über Kinderhautkrankheiten, S. 105, 1889.

<sup>2</sup> Klin. Vorlesg. Wien. Allg. Med. Zeitung, 1886.

\* "What Conditions Influence the Course of Syphilis?" THE MEDICAL NEWS, October 30, 1897.

attained two years of age, indicated that the result of its prolonged treatment had been wholly satisfactory. It was plump and well nourished. The mother had a long and serious convalescence after repeated attacks of iritis, with at one time the formation of a gumma in the breast.

With a view, then, to answering the question, what conditions influence the course of acquired infantile syphilis, the virus or the individual, experience would point to the conclusion that in infants the individual, as against the virus, exerts that degree of higher influence which may be recognized in the case of acquired syphilis of adults. Many writers who touch upon this theme have introduced, in the presentation of these cases, the influence of treatment as a modifying cause. With a view to gaining some insight into the truth of the matter, we may be permitted to compliment the Council in the elimination of the element of treatment from the terms of the present discussion. Here it is a question simply of virus *versus* individual, with the weight of evidence now on one side and now on the other, according to the conditions presented in different cases. These conditions are wholly different in the case of chemic intoxication, and in the instance of poisoning by living micro-organisms. In the former the pathologic results are proportioned with approximate exactness to the dosage of the chemic poison. In the latter, the multiplication of fission-fungi within the animal organism may proceed with the greatest activity after a minimum quantity of the virus has once been introduced into the economy; and the soil, together with favorable or inhospitable environment, has much to do with the question of multiplication and toxin production of the implanted germs.

If we turn to the facts of general pathology we find the answer which awaits us there the same as in syphilis—a malady which Andrel once declared would furnish a key to the study of all morbid phenomena in the human body. The smallest dosage of the variolous poison, even in the attenuated form of mild varioloid, is capable of transmitting to the unprotected the severest confluent form of the disease. In certain epidemics of hemorrhagic variola even the protected at times may suffer. By the attenuation of a virus many of the brilliant advances of modern therapeutics have been attained. Diphtheria, hydrophobia, and tetanus bear ample witness of this fact. But he is indeed blind who cannot see in the subject of tuberculosis, of septicemia, of yellow fever, and of cholera the wall which is ever and again built as a bulwark to the encroachments of disease, by the sound constitution, the satisfactory habits, and the hygienic environment of the selected individual.

## CLINICAL LECTURE.

### A CASE OF SUSPECTED CARDIAC ANEURISM; FOUR CASES OF CHRONIC PAREN- CHYMATOUS NEPHRITIS; THE USE OF INTRAVENOUS SALINE INJEC- TIONS IN UREMIA.<sup>1</sup>

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THE first patient shown to-day is of more than usual interest, because, if the diagnosis is correct, he is suffering from a very rare cardiac affection, a condition which is still more rarely correctly diagnosticated during life. He is about thirty-five years of age, and while a very young child suffered from an attack of acute infantile palsy, which, as you see, has seriously interfered with the proper use of his right leg. At the age of nine years he had a severe attack of acute articular rheumatism, which confined him to bed for a number of weeks, and at fourteen he was again incapacitated by an "attack of dropsy," as he expresses it, which his physician told him was due to the condition of his heart. He remained fairly well until 1892, when he began to suffer somewhat from dyspnea, and from 1894 to the present time he has suffered from a constantly increasing dyspnea, which has been so severe as to prevent him from doing any form of labor or taking any but the gentlest exercise. The dyspnea is more or less constant, is greatly aggravated by exercise, and he tells me that the disturbance of his heart following slight exertion has within the last week twice resulted in a sudden attack of syncope. His face, as you notice, is unusually pale but not at all cyanotic; indeed, he presents rather the appearance of a patient with chronic parenchymatous nephritis. When we examine his urine, we find that it is heavily loaded with albumin, that it contains a few epithelial casts and some uric-acid crystals. An examination of his heart shows a very extraordinary condition: There is considerable bulging over the whole precordial region, and palpation reveals a heaving impulse, which is most marked two inches below the nipple and half way between the anterior axillary and the mammary line. The impulse in this area is not only forcible, but it is distinctly expansile, giving one the peculiar distensile sensation so frequently felt in cases of aneurism of large blood-vessels—for instance, aneurism of the thoracic aorta, of the abdominal aorta, or of the popliteal artery. This peculiar expansile pulsation is one of the most important points in the diagnosis of this case. An examination of the heart by auscultation reveals the fact that in the particular spot where this expansile pulsation is felt there is a soft bruit or murmur, a bruit which cannot be heard over other portions of the heart. The ordinary heart-sounds are so muffled as to be practically indistinguishable, and we simply have a sensation both on pal-

<sup>1</sup> A clinical lecture delivered at the Jefferson Medical College Hospital.

pation and auscultation of a moving body in the place in which the heart ordinarily produces its characteristic valvular sounds.

On inspection you can actually see the powerful apex beat and its somewhat expansile character. A careful study of this case leads me, for the following reasons, to believe that it is one of cardiac aneurism: (1) The markedly expansile character of the apex beat. (2) The fact that this apex beat is far below the normal point and much further to the left than it ought to be; in other words, it is in a position where an aneurismal dilatation of the ventricular wall at the apex would naturally project itself. The attacks of dyspnea from which the patient suffers on exertion, while they often occur in cases of valvular disease of the heart, are usually associated with considerable dilatation of the organ, a condition which does not exist in this case. We find that the area of cardiac dulness is not materially increased to the right nor to the left, except in the direction named. Finally, the murmur probably does not depend upon a valvular lesion, as it is not constant; it varies in intensity before and after exercise, and in all probability disappears when the patient rests and takes stimulants. This latter fact is made clear when it is understood that he recently had his life insured for \$5000, successfully passing the medical examination by taking full doses of strychnia beforehand and thereby rendering the action of his heart not only regular, but devoid of murmur. I have carefully gone over the other lesions which might possibly produce symptoms similar to those from which he suffers, and am unable to discover any signs pointing to a condition other than that which I have named.

The treatment should be almost identical with that which we usually give a patient with aneurism. He should, if possible, be placed upon his back, should receive moderately full doses of iodid of potassium, and a sufficient quantity of aconite to act as a marked sedative upon his heart without at the same time depressing it too greatly. His diet should be regulated, and, should he for any reason refuse to stay in the house, we will earnestly urge him to avoid anything like a sudden strain, as running, or the ingestion of powerful stimulants such as alcohol, a drug which he is accustomed to use in excess.

I neglected to say that one reason for believing that the patient is suffering from cardiac aneurism is the character of the impulse which is present, the force of the heart, as it were, seeming to be expended upon itself; as a result the peripheral circulation is poorly maintained. On first seeing this patient you might be tempted, because of the feeble circulation in the peripheral arteries, to give him digitalis, but in my belief this would be improper therapeutics; since it would raise arterial pressure, thereby increasing the pressure of the blood inside the ventricle, and further, digitalis, would stimulate the remaining healthy fibers of the left ventricle to such an extent that the aneurismal swelling would be markedly increased in size. (At this point the patient interrupted the lecturer by stating that digitalis had often been given to him and was "poison" to him; that its use always gave him precordial distress and marked dyspnea, and that alcohol taken in full doses

had a somewhat similar effect.) For these reasons, then, if any cardiac stimulant is to be administered, strophanthus would be the best, because it would not raise the arterial pressure. Indeed, he tells me that nitroglycerin has also done him great good at times, particularly when he has had a severe attack of cardiac disturbance. The relief afforded by this drug under these circumstances is probably due to the fact that the nitroglycerin, by relaxing arterial tension, diminishes the dilatation of the aneurismal sac. I shall carefully watch his case and report to you any interesting details which may develop.

I now bring before you four patients, all of them in different stages of chronic parenchymatous nephritis. Two of the patients, as you see, are afoot, one of them is fairly stout but exceedingly pale and waxy-looking. As you notice, he has considerable dyspnea, but this is much less marked than it was when first he walked into the hospital, as he now has had several minutes' rest. An examination of his heart reveals a prolonged systolic murmur which is probably due to mitral regurgitation, although the action of the heart is so irregular and its sounds so indistinct that an exact diagnosis of the character of the murmur is difficult.

The second patient you will notice is evidently a man who has been much exposed to weather and to the excessive use of alcohol. He presented himself at the dispensary two days ago with urgent dyspnea, and with slight twitching of the muscles in various portions of his body. An examination of the heart failed to reveal any lesion sufficiently severe to explain his respiratory symptoms, but an examination of the urine showed a large amount of albumin and it was also found to contain epithelial and granular casts. An examination of the first patient's urine also shows the presence of an enormous amount of albumin.

Now these two patients are brought before you to emphasize one important clinical point, namely, that in the presence of a history of dyspnea of recent onset you should always examine the urine in order to discover whether or not the respiratory difficulty depends upon uremic poisoning. I wish to emphasize this fact because such an examination is often neglected and the careless and frequently incorrect diagnosis of primary cardiac or pulmonary dyspnea is made. Then, again, if you are not cautious, you may be misled into believing that frequent attacks of shortness of breath, particularly when nocturnal, are due to asthma, when in reality they are uremic; and the safest rule for you to follow is to examine the urine in every case of dyspnea, even though there seems to be sufficient cardiac and pulmonary difficulty to account for the symptoms. Thus, an examination of this man's chest, posteriorly at the bases of the lungs, may show impaired resonance and numerous râles, and you will be inclined to think that the patient is suffering from ordinary pulmonary congestion or catarrhal pneumonia when in reality there is present an edema of the lung due to a renal lesion. The marked dyspnea in both of these patients is evidently uremic in origin. The fact that one of them has already had diffuse muscular twitching indicates the onset of a uremic storm. The scanty amount of urine

which they have been passing and the feeble condition of the circulation in each case make it necessary that we should at once do something for their relief. They are too feeble to receive pilocarpin, too feeble to be bled, too feeble to be purged, and, on the other hand, their circulations are not so feeble as to require stimulation. What then shall we do? By far the best thing would be to place them in a hot pack, preceding which they should be given a bath and be washed with Johnson's ethereal anti-septic soap. This will remove from the skin all dirt and dead epithelium, and will open the pores so that the use of a hot pack immediately after the bath will result in the free outpouring of the impurities in the blood through the sweat-glands. During the time the patients are in the hot pack, if there is any delay in the appearance of the sweat, each should receive a glass of ice-water, as this frequently causes the sweat to appear at once, probably by contracting the central blood-vessels and driving the blood to the periphery. Should there be any tendency to cardiac feebleness we will administer a dram of gin every two or three hours; for this alcoholic preparation will at once stimulate the circulation and the diseased kidneys to increased activity, and because, in one of the patients, a deprivation of all alcoholic stimulation might precipitate an attack of delirium tremens.

The other two patients which are shown have been exhibited before. One of these men, when he entered the hospital a week ago, was so uremic as to drop off into unconsciousness whenever he was left to himself a minute or two. He was dyspneic, his pulse was exceedingly feeble, he was suffering from anasarca, and his lips and facial muscles were twitching from the uremic poisoning. At that time the anterior abdominal wall could be easily pitted on pressure. In his case, too, it was evident that bleeding and purging or a pilocarpin-sweat were all contraindicated by an exceedingly feeble condition, and I therefore decided to at once resort to the intravenous injection of a normal saline solution. I opened a vein on the anterior aspect of his forearm, inserted a small glass cannula which had a shoulder at its tip so that I could readily tie it in a blood-vessel, filled the cannula with salt solution in order to exclude air, connected it with the tube from the irrigating apparatus containing normal saline solution, and allowed a quart of the latter to flow very slowly into the vein.

As a result of this treatment the patient, who, in the previous sixteen hours had not passed any urine, passed within the next few hours no less than thirteen ounces, and perspired quite freely. As now, six days later, he sits before you in a rolling-chair, you will notice that he is pale to excess, and has the characteristic appearance of a patient with chronic parenchymatosus nephritis, but he will tell you, as he has told me, that he is now free from headache for the first time in several months, that he feels very much better in every way, and that his dyspnea has disappeared. He has developed an inordinate hunger, indeed, so great that we have been forced to allow him a larger quantity of food than is ordinarily advisable in these cases. He is also receiving a dram of gin every two hours, and you may see from the chart that, since the gin has

been administered and the intravenous injection used, he has passed from twenty-eight to thirty-two ounces of urine in each twenty-four hours, although, as I have said, previous to his admission to the hospital, he was not passing more than five or six ounces in that period.

The other patient has been before you on three previous occasions. Twice he has been tapped before the class for ascites occurring in connection with a general anasarca; for the reason that the pressure upon his diaphragm was such as to seriously interfere with comfort. The fluid is once more returning, but you will notice that his face and hands are not at all edematous, and that his feet are far less so than when he came before you on previous occasions. Further, he has been able, during the past week, to sit up a number of hours each day instead of being constantly confined to his bed. His appetite is fairly good and he passes urine freely. His treatment has consisted of the administration of 5 drops of the tincture of strophanthus three times daily, with 2 drops of the tincture of cantharides every eight hours. He has now received this treatment a month, and in addition small doses of Basham's mixture have been occasionally administered. He is very much better, although it goes without saying that the grave renal lesion precludes a favorable prognosis. Four or five days ago he was seized with a severe cough, and his temperature rose to 103° F. I feared during the next twenty-four hours that he was being attacked by pneumonia, but the lungs cleared, the cough has largely ceased, and I am in hopes, inasmuch as he is so much better, that the pulmonary condition was a mild attack of influenza or else one of those cases of transitory pulmonary congestion sometimes observed in patients with nephritis.

## CLINICAL MEMORANDA.

### CHANCRE OF THE LIP PROBABLY ACQUIRED THROUGH THE USE OF A "ROUGE STICK".<sup>1</sup>

By DOUGLASS W. MONTGOMERY, M.D.,  
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PROFESSOR OF DISEASES OF THE SKIN IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF CALIFORNIA.

ON December 18, 1896, I was called to see an unmarried girl, twenty years of age, who was suffering from a sore on the left side of the vermillion border of the lower lip, which she had first noticed about one week before. The lesion was covered by a brown, flat, depressed scab; but a raw surface extended down a short distance on the inner side of the lip, and there abruptly ended. The right submaxillary lymphatic nodule was very much swollen, hard, and somewhat painful. This was the only subcutaneous node which was demonstrable, and, except the lesion on the lip, there were no eruptions of the skin, or in the mouth, and the hair did not show a tendency to fall out.

The appearance of the sore, as well as the marked enlargement of a neighboring lymphatic nodule instantly raised the suspicion that it was a chancre. The closest questioning could only elicit that she had had a "cold-

<sup>1</sup> Read at a meeting of the California Academy of Medicine, September 18, 1897.

sore," which a druggist had touched with a stick of silver-nitrate. This cauterization had, however, taken place only about a week before I saw her, so that it was clearly not at that time that the infection had occurred.

The gravity of the question involved was explained to the patient, as was also the necessity of making an accurate diagnosis even at the expense of great personal discomfort. A positive diagnosis was not made until January 30, 1897, forty-three days after she first came under observation. At that time the sore was very large and painful, and projected out from the lower lip in the characteristic dish-form, with rolled edges and with a great deal of firm induration in the surrounding tissues. The enlarged lymphatic node under the right side of the lower jaw had decreased in size, but the anterior and posterior cervical lymphatic nodules on both sides were now demonstrable, and there was a well-marked roseolar eruption upon the chest and abdomen. There were also mucous patches upon both tonsils. There was pain and tenderness over the inner aspect of the upper third of both shin bones.

She was given mercury and chalk tablets internally, and unguentum hydrargyri was applied to the chancre. The patient was again seen on February 16th, by which time the ulcer on the lip had perfectly healed, leaving its site only slightly indurated. There was no rash whatever, and she appeared to be in perfect health.

On one of her visits to my office, the patient, as a possible solution of the riddle of how she became infected, told me of a custom of which, up to that time, I had known nothing. She said "that in some of the hair-dressing establishments, the hair-dresser, as a final touch, drew a moistened "rouge stick" across the lips of her customers." This "rouge stick" is a cylinder composed of a firm, red ointment. The firmness necessitates a slight moistening before being applied, and, disgusting to relate, this is frequently accomplished by the hair-dresser first putting it in her own mouth and then deftly drawing it across the lips of her customers. Then, again, all customers are treated with the same "stick," and my patient told me that "in the shop where she usually went to have her hair dressed she had noticed many 'chemical blondes' and otherwise strikingly dressed women." As far as the character of the young woman under consideration is concerned, however, it may here be remarked that during the entire terrible ordeal of doubt and anxiety which she went through before the diagnosis was absolutely confirmed, she conducted herself in an entirely modest and straightforward manner, so that it was not held likely that she acquired the affection otherwise than by accident. The fact that she went to a shop patronized by those females with whom Isaiah was so out of patience, "they who walk with outstretched necks and wanton eyes, mincing as they go," must not place her by inference among the unrighteous. Neither must her passive submission to an obviously filthy practice stamp her as being uncleanly, for people otherwise dainty in their ways, will passively submit through embarrassment or a desire not to offend to many things at the hands of barbers and hair-dressers.

It of course can never be known whether this patient

was actually inoculated with this public "rouge stick," but there was no doubt that she had a chancre of the lip, and there is also no doubt that this would be a perfectly reasonable way of conveying the disease. It would be analogous to the conveyance of syphilis by means of the stick of nitrate of silver of which there are so many cases on record, and the danger of which was so well recognized that Fournier advised that it be entirely banished from all hospitals and clinics.<sup>1</sup>

It is not at all likely that this filthy use of the "rouge stick" is a custom peculiar to San Francisco, and with such a favorable means of conveying syphilis it is wonderful that cases so acquired have not been reported before. One would even think it would give rise to some of those fearful epidemics of the disease such as have been reported in glass-blowing establishments, where a whole row of workmen have contracted syphilis from the blowpipe passed from one to another.

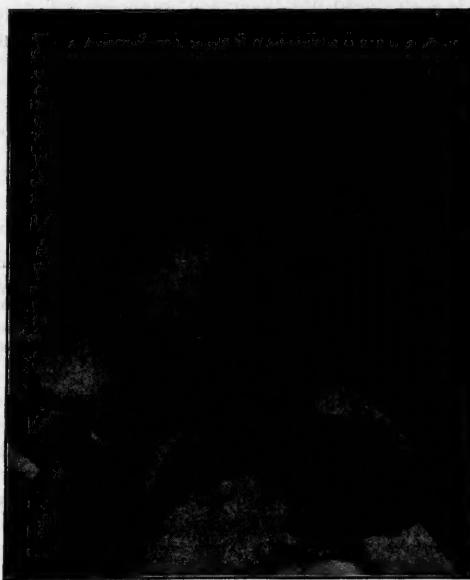
#### A CASE OF FATAL INFANTILE ANEMIA, WITH GREATLY ENLARGED SPLEEN.

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H. M., aged eighteen months, born of Portuguese parents, was brought to the out-patient department of the Massachusetts General Hospital, and came under



Anemia, with greatly enlarged spleen, in a child aged eighteen months.

my care December 4, 1895. The family history was good, except that the father, a sailor, had suffered severely

<sup>1</sup> Quoted by F. Muenchheimer. "Ueber extragenitale Syphilis-infection." *Archiv f. Dermatologie u. Syphilis.* Bd. xi., S. 200.

from malaria. No history of venereal disease was obtained from either parent. The patient had been fed partly upon breast-milk and partly upon raw, undiluted cow's milk. He seemed well until eight months old, when he began to grow pale and weak, and the abdomen became swollen and hard. These symptoms persisted and increased. Relief was sought especially for a persistent diarrhea. There were three or four greenish, liquid movements daily.

On physical examination, the child was found to be feeble, ill-nourished, extremely pale, and appeared to be suffering. The anterior fontanelle was still open. There was a slight rosary where the ribs joined their cartilages. The epiphyses were somewhat enlarged. In the neck, axillæ, and groins hard glands about the size of a pea could be felt. The rectal temperature was 99° F. The chest was normal, except that the left base was encroached upon from below. The liver was slightly increased in size. The spleen was uniformly enlarged and hard. It reached slightly beyond the navel toward the right, and extended downward to within two fingers-breadth of the anterior superior spine of the left ilium. The blood contained an excess of white corpuscles.

On December 13th, the hematocrit demonstrated the number of red globules as 2,500,000, and the white as 25,000 per cubic millimeter. The percentage of hemoglobin was thirty-two. A differential count of the white corpuscles was made at this time by Dr. W. H. Smith, and on January 23d two counts were made by Drs. Richard C. Cabot and Henry F. Hewes, respectively. The accompanying table gives the results of these counts.

#### BLOOD EXAMINATION.

| Smith,<br>Dec 13th.                           |                | Cabot,<br>Jan. 23d.                                     | Hewes,<br>Jan. 23d. |
|---|----------------|---|---------------------|
| Red cells.....                                | 2,500,000      | 2,500,000   |                     |
| White cells.....                              | 25,000         | 22,000  |                     |
| Hemoglobin.....                               | 32 per cent.   | 1000  |                     |
| No. of white cells counted.....               | 250            | 48 per cent.  | 30 per cent.        |
| Small lymphocytes.....                        | 16 per cent.   | 8.9 per cent.   | 10 per cent.        |
| Large lymphocytes and transitional cells..... | 16.7 per cent. | 4.6 per cent.   |                     |
| Polymorphonuclear neutrophiles.....           | 42.5 per cent. | 39.4 per cent.  | 38.6 per cent.      |
| Eosinophiles.....                             | 10.4 per cent. | 4.8 per cent.   | 9.2 per cent.       |
| Myelocytes.....                               | 12.8 per cent. | 8.2 per cent.   | 6.6 per cent.       |
| Normoblasts.....                              | 104            | 57  | 72                  |
| Megaloblasts.....                             | 173            | 92  | 250                 |
| Microblasts.....                              |                | 48  | 116                 |
| Cells with karyokinesis.....                  |                | 6   |                     |
| Porphilocytes.....                            |                | a fair number<br>a considerable number<br>a few<br>none |                     |
| Microcytes.....                               |                |   |                     |
| Macrococytes.....                             |                |   |                     |
| Parasites and Polychromatophiles.....         |                |   |                     |
| Erythroblasts of Löwit...                     |                | 28  |                     |

It will be seen that the number of red corpuscles was larger than in pernicious anemia, that the case certainly was not one of lymphatic leukemia, and that the number of white cells was too small for splenic-myelogenous leukemia. Myelocytes and nucleated red blood-corpuscles are seen in both pernicious anemia and splenic-myelogen-

ous leukemia. "The presence of myelocytes in numbers," remarks Dr. Hewes in his report, "with the pernicious anemia-type of blood, always suggests to me that the two diseases, pernicious anemia and myelogenous leukemia, are but different types of the same pathologic condition." Cabot,<sup>1</sup> after discussing this very case, said, "We meet with cases in infancy which are apparently intermediate between leukemia and pernicious anemia."

It seems to the writer that there has not yet been gathered a sufficient number of reports of cases, since the new methods of studying the blood have been developed, to furnish a basis for exact classification. It is, therefore, wiser to report all such observations and to leave the interpretation of them until a later day. Many would call this an instance of the disease described by Von Jaksch, under the name of "Anemia Infantum Pseudoleukemia." Rachitis, which was present in a moderate degree in this patient, may cause great enlargement of the spleen, as has been shown by Dr. J. Lewis Smith,<sup>2</sup> who stated that "in a recent very anemic and fatal case of rachitis, in the New York Foundling Asylum, the spleen extended below the level of the umbilicus."

The case was regarded as hopeless. Advice was given about feeding, and  $\frac{1}{2}$  minim of Fowler's solution of arsenic, afterward increased to 1 minim, thrice daily, was prescribed. The digestion improved, but the patient grew weaker and died about two months after he was first seen. There was no autopsy.

#### AN ADDRESS.

#### BELLEVUE AND ITS RELATION TO MEDICAL PROGRESS.<sup>3</sup>

BY LANDON CARTER GRAY, M.D.,  
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PROFESSOR OF NERVOUS AND MENTAL DISEASES IN THE  
NEW YORK POLYCLINIC.

THE alumni of this college who graduated a quarter of a century ago look back with very tender memories to the remarkable men then composing its faculty, probably the most brilliant group of medical teachers ever gathered together in this country. By an easy effort of the memory, so striking were their characteristics, we can recall them all: Austin Flint, with his massive head and benign face, which was once compared to that of Fénelon, the French prelate and author; James R. Wood, the incomparable operator, eagle-eyed, rubicund of visage, spotlessly attired in his dress suit, even during the morning, and invariably adorned with a buttonhole nosegay; Van Buren, grand of manner, with an easy flow of simple words, and his high head knocking the stars; Hamilton, erect in his military bearing and precise in language; Barker, husky of voice, but of strikingly commanding presence; Isaac E. Taylor, a tremendous man, as I recently heard him called; Sayre, now living at a ripe age, with the satisfaction that is rarely vouchsafed a man of genius, of seeing his own original

<sup>1</sup> "Clinical Examination of the Blood," p. 345.

<sup>2</sup> Starr's "American Text-Book of Diseases of Children," p. 342.

<sup>3</sup> Delivered on the occasion of the laying of the cornerstone of the new building of the Bellevue Hospital Medical College, New York, November 13, 1897.

ideas universally accepted; and Austin Flint the younger, whose lectures are to-day as lucid and charming as of yore, when we sat on the benches nervously apprehensive lest a mistake of one-hundredth of an inch in the diameter of a Malpighian corpuscle or blood-globule should make us miss our sheepskin.

We medical men have no saints, or else this school would be our shrine. But it is doubtful after all, whether laying the cornerstone of a medical school is not as important as the same ceremony in relation to a church, or whether any power short of omniscience itself can determine which is the most far-reaching in effects; for the minister and the physician certainly have an identical purpose, the relief of human suffering, although each attains his purpose in his own way, the former by the inculcation of ethical principles and the belief that happiness will come after death, the latter by easing pain during life by material means. It should be no reproach to either Religion or Medicine that their agents must be of necessity fallible human beings, who are often cruel and short-sighted, but it should be remembered that the persecutions of the one and the cruel methods of the other are more frequently the outcome of organic limitation of the human brain than of unworthy motives. In the dawn of civilizations, as Herbert Spencer has shown, the priest and the medical man were one, but with the differentiation of pursuits incidental to the evolution of society they have gone apart, notwithstanding their real unity of purpose. Nevertheless, even to-day most of the charitable work of the church would be impossible without the aid of the physician. Go down the street into Bellevue's great city of the sick, into its great wards, teeming with patients, and you will be impressed at every turn with the evidences of man's humanity to man, but at the same time you will be very apt to forget that back of it all is the medical school—even the precise cleanliness is due to a physician, because cleanliness is nothing more than popular antisepsis, while antisepsis is only scientific cleanliness; aye, and back of every hospital, dispensary, and sick-room in the land is the medical school. The bubonic plague, now limited to the East, extended throughout Europe during the Middle Ages, causing hundreds of thousands of deaths. Typhus fever, which was familiar to practitioners thirty years ago, has never been seen by many middle-aged men in this room. The control of smallpox is so efficient that numerous insurance companies do not require vaccination on the part of applicants. We all remember how the Asiatic cholera knocked at our doors a few years ago, and failed to get in. The death-rate of diphtheria has been lowered fifty to seventy-five per cent. The number of people in the community wearing eye-glasses is a striking object lesson of what the oculists have done, and every medical man is familiar with the revolution of recent years in the treatment of women's ailments, nervous and mental diseases, and surgery. What has rendered all these improvements possible is the medical school. In it has been taught the natural course of disease and the results of the employment of medicinal agents, and through it has come the training school and the vast improvements in hygiene and dietetics.

The prize of the French Salon in 1892 was given to a picture by Fritel, entitled "The Conquerors." It represents a serried phalanx of magnificent warriors, whose spears glisten across a vast plain as far as the eye can see. In the van is Julius Cæsar, "the foremost man of all this world," as Shakespeare calls him, the Egyptian Rameses the II., Attila, the "Scourge of God," Hannibal, the Carthaginian, Tamerlane the Tartar, Napoleon, Alexander the Great, Nebuchadnezzar of Babylon, Charlemagne, and many others who have made history. On either side are the stark and naked bodies of the dead in ghastly array. But these were not the true conquerors of the world. Fritel should paint another picture representing a long white-robed procession, not bedecked with martial trappings, of those who have tried to lessen the sorrows of the world, no passing between aisles of the dead, but through tumultuous throngs of the glad living, singing paeans of praise and joy; and among these stately aristocrats would be found Jenner, who gave us vaccination; Morton and Simpson, from whom came ether and chloroform; Pasteur and Lister, who made modern surgery possible with antisepsis; Koch, to whom we owe tuberculin and antitoxin; and Koehler, who bestowed upon us cocaine, which has revolutionized minor surgery.

In a curious book lately published in Paris, I happened upon an astonishing illustration of the progress of medicine. It appears that in 1686, Louis the XIV., the greatest monarch of his day, was found to have a fistula. At first it was treated with a plaster composed by a lady of the court, but this proved unavailing, and twenty days afterward the abscess was opened with a cautery, which was applied one hour and a half. Then the waters of Barèges were recommended to his majesty, and four persons suffering from fistula were sent thither while the court surgeon experimented upon them with the waters. The waters of Bourbon were next exploited, and many individuals were put into the hospital and treated with various vaunted remedies. Finally, at the end of a year, the knife was used, but before this was done all fistulous patients were operated upon by the surgeon, Félix, so that he might acquire the necessary skill. In spite of all these precautions, it was fifty-four days after the operation before the King could walk out. For this bungling surgical procedure the first surgeon, Félix, received 300,000 livres (equivalent to about \$120,000 of our money), a large property, and two titles of nobility. The next surgeon obtained 100,000 livres, another 80,000, a fourth 40,000, and the assisting apothecaries each 12,000. At the present day any fistulous Weary Waggles of the comic papers picked up intoxicated from the gutter and sent to the Island would be cured within the two-weeks' sentence which the magistrate would probably impose. This is the difference in 200 years of progress!

In view of this identity of purpose of the minister and the physician, it is rather singular that the former should have received such generous aid in the way of endowments in this country, while the latter has been given very meagre support. Abroad, in France, Austria, and Germany, the medical schools are endowed by the State, and it is a significant fact that from this portion of Europe,

especially from Germany, in which there are over fourteen endowed universities, have come all the great advances of modern medical science. In this modern world with its far-driven specializations, the specialist in money-making must necessarily accumulate wealth with more facility than the professional man, to whom pecuniary gains are only incidental, and whose chief energies are given to his profession; and medicine is the least lucrative of all professions, as so much teaching is required of its best men. No medical professor in the United States receives the salary frequently paid by a first-class insurance company to its medical director, and the compensation for one-to three-hours' daily teaching or the duties incident thereto, is usually less than the salary of the medical director of the smallest insurance company, while there is often no remuneration at all for such services. This lack of endowment is not only extremely unfortunate in that it limits the facilities of the medical schools, but also because it absolutely debars many men from entering upon much magnificent scientific work which in itself is non-lucrative. Talent, after all, seeks the best market, just as do potatoes, cabbages, meat, or cattle. Some cloudy-minded transcendentalists may scout at this idea, yet it is an obstinate fact. What difference does it make, after all, even if it is so? The world should be thankful that every once in a while it has the great benefit of men who can think clearer and farther than the average, and it ought to encourage them in every way. Carlyle once said that England could very much better afford to lose its Indian Empire than to go without Shakespeare. A few years ago I was rather startled by the statement of a celebrated French surgeon who was visiting this country, that he believed New York would be the medical center of the world within twenty-five years, "because," he said, "you have the enormous population around you here, you have the wonderful transportation facilities which bring patients to you from all over your vast continent, you have the hospitals, you have the medical schools, and all that you now need are the endowments, which must come by that time out of the superabundance of the wealth of this richest of all lands."

## MEDICAL PROGRESS.

**Orthoform.**—EINHORN and HEINZ (*Ther. Monatshefte*, October, 1897) have discovered a local anesthetic to which they have given the name of orthoform. It is a white, light, crystalline powder, without taste or smell. It is only slightly soluble in water, and therein lies its chief value. It dissolves just fast enough to cause a lasting anesthetic influence. Its action is observed upon mucous membrane, granulation tissue, or the surface of a wound. Either as a powder or mixed in a salve it is especially adapted for use upon burns of the third degree, upon painful ulcers, carcinomatous or otherwise. The remedy is absolutely non-poisonous. It limits the amount of secretion, absolutely prevents putrefaction and fermentation, and as a stimulating, healing dressing for a wound it has much to recommend it. In painful ulcers of the larynx, a single treatment with this drug will reduce the

smarting during a period of twenty-four hours. It may be used internally for the relief of stomach or intestinal pain. Its action is especially noticeable in ulceration and carcinoma of the stomach, but in cases of chronic gastric-catarrh or dilation little benefit is to be expected from its use. The muriate of orthoform is freely soluble and may be used internally, but is not adapted to subcutaneous injections on account of the intense pain which the acid solution occasions. On account of the lack of poisonous qualities it may be dusted upon surfaces *ad libitum*. In salves a strength of 10 per cent. is recommended. Internally, from 5 to 15 grains may be daily administered.

**Eka-iodoform.**—A preparation produced by SCHERING (*Münch. Med. Wochenschr.*, October 12, 1897) in which a small quantity of paraform is mixed with iodoform, is called eka-iodoform. According to Gottstein's investigations the remedy is sterile and has antiseptic action, properties which are lacking in iodoform. Thomalla has employed it in 100 cases with good results.

**Detection of Spermatic Fluid.**—According to LECCO (*Therapeut. Monatshefte*, October, 1897) it is easy to recognize spots of spermatic fluid, even after the lapse of some years. The following microchemic test is peculiarly sensitive. The spot should be soaked in water, and a drop of the solution introduced between the microscopic slide and the cover-glass; next, a drop of a saturated solution of iodin in potassium iodid is allowed to flow under the cover-glass—a number of remarkably beautiful crystals which are characteristic of spermatic fluid will then be formed. They are stained brown, and are rhomboidal in form, often occurring in the form of crosses. After the discovery of this reaction Lecco learned that Florence had independently made a similar discovery.

## THERAPEUTIC NOTES.

**Eunatrol as a Cholagogue.**—Eunatrol is a name given to the oleate of soda. It occurs as a white powder, with a slight, not disagreeable, odor, and does not become rancid. It may be given in capsules or tablets, the daily dose being from 30 to 40 grains. BLUM (*Bull. Gen. de Thérapie*, July 23, 1897) has found that eunatrol has a marked influence on the flow of bile, due presumably to a direct stimulation of the hepatic cells, since the drug acts in this way, both when given by the mouth and when injected subcutaneously in aqueous solution.

**The Treatment of Contusions by Menthol Collodion.**—NAME (*Jour. de Méd.*, September 12, 1897) gives the following directions for the treatment of contusions:

(1) Rigorous antisepsis; careful cleansing of the parts with ether. (2) The application once or twice daily of collodion, containing ten to twenty-five per cent. of menthol. Under this treatment pain quickly subsides and the constrictive influence of the collodion causes the disappearance of the effusion in from two to four days. Extensive contusions about the joints are not so favorably influenced.

# THE MEDICAL NEWS.

A WEEKLY JOURNAL  
OF MEDICAL SCIENCE.

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SATURDAY, DECEMBER 4, 1897.

*DR. JACOBUS' ADDRESS.*

THE inaugural address of the new president of the Medical Society of the County of New York, Dr. A. M. Jacobus, which was published in the last number of THE MEDICAL NEWS, contains much which merits careful consideration. The sharp criticism of the methods employed by the New York City Board of Health will meet with approval or indifference, according to the point of view of the individual physician who may or may not have come in personal contact with that body, but the fact remains that a sharp line should be drawn between its proper functions and the rights of the family practitioner, if for no other reason than to lessen the possibility of controversial encounters.

Dr. Jacobus dwelt at length upon one subject of such paramount importance that his words should sink deep into the inner consciousness of all and result in the abrogation of a system which, in the light of present knowledge and practice, is nothing less than a disgrace to intelligence. "The name of midwife in this city to-day is synonymous with feticide, infanticide, and homicide. Midwives have no legal status; it seems only requisite, in order that they may qualify for such a calling, that they shall have

attended one or more cases of confinement, perhaps their own, obtain a certificate from two physicians and file the same at the Health Department, when they are graduated to go on their errand of mercy and, not unfrequently, death."

It is unnecessary to lay stress upon the importance not only of again agitating this subject to the greatest possible degree, but of hastening the motion of legislative machinery whereby a law shall be enacted for the suppression of the evil entirely, or, at least, providing for the proper education and preparation of midwives as a class. The Society of Medical Jurisprudence has already appointed a committee of its members looking to this end, and it is sincerely to be hoped that the County Medical Society will join hands with it in its laudable endeavors.

Even to those who are supposedly familiar with the work of the Society it is a matter of surprise to learn of what has been accomplished during the past seventeen years in the way of protecting the public and the profession from irregular medical colleges, and physicians, midwives, and druggists illegally practising medicine. Until very recently, it has been the only organization in this city to prosecute offenders of this class, and the expense attendant upon the work during these years has amounted to nearly \$45,000. This admirable work must not be allowed to cease, but to carry it on more money is needed by the Society. The annual dues are but \$3, a sum within the reach of all. Five hundred new members are necessary, and this number, added to the eighteen hundred now on the active list, will make the County Society a greater power for good in State and municipal affairs than it has ever been. It is the duty of every reputable physician in this city to show his appreciation of what is being done for his benefit, individually, and for that of the profession collectively, by adding his name to the Society's list.

*THE "TRADE" OF MEDICINE.*

THAT the profession of medicine is the noblest of all vocations we personally are not inclined to doubt. By the world at large, it has been held as second only to that of the clergyman, the apostle on earth of the Great Healer. That this honored calling should in recent years have become so largely a mercantile pursuit, that it is affected by our practical ideas in a country where all is business is per-

haps not at all surprising. This spirit has largely contributed to degrade the physician from his former high estate; but a more immediate cause is the excessive development of specialism.

Far be it from our purpose to speak slightingly of special work! The extraordinary development which has marked the progress of medicine and surgery during recent years has compelled men to devote themselves to some one branch, and no one knows better than physicians themselves how much mankind owes to broad and comprehensive specialism practised by so many distinguished men at the present day. But while mankind has profited, our own profession has suffered. Specialism has altered the personal relation between the physician and patient; it has made it a transient and generally a purely business connection. It has developed a large number of men of little special, and less general, knowledge of a great science, whose interest in the patient is limited to the amount of cash which he may pay. It has developed men to whom a profession is purely a matter of business, to whom the practice of medicine is as a department-store in which they have a counter.

Specialism, we believe, has greatly lessened that scholarship in medicine which was once characteristic. Indeed, there is a well-grounded fear that it will eventually banish the "scholar in medicine," whom Dr. Da Costa describes as "an attractive figure, indeed": "We see him pursuing what noble ends; ambitious for what lofty recompense; passing from life's beginning to its end, through what scenes of sustained satisfaction—not grasping and scrambling for petty prizes or fleeting reputation and wealth, but aiming only at lofty objects."

And with the scholar has passed also the old practitioner whose heart was generous and whose ways were gentle, who to a sound knowledge added a wide range of sympathies, liberality of thought and feeling, and who, above all, was deeply impressed with the ennobling responsibility of his profession.

We remember entering the office of such a physician, now dead, just as he arrived, deeply affected, from the death-bed of a patient and friend of fifty-years' duration. While we were talking the telephone bell rang, and he asked the writer to answer it. The message was from the wife of his former patient, who begged that, as their clergyman was away, would the

old doctor come and be with them to the end. What would the specialist of to-day, with his departmental view of man, his narrow sympathies, and his cash consultations, think of such a relation as this between the physician and his patient?

It goes without saying that there is nothing in specialism as such, which militates against a high purpose in medicine; the fault lies with some of the men who practise it. It is the modern, up-to-date, mercantile specialist who has done so much to change the science of medicine from a profession to a business; it is a business to them and as a business must be advertised, and hence the constant appearance of even reputable physicians in the public press; hence the "advance notices," as our theoric friends would say, which are given to the daily papers; descriptions of supposed discoveries of cures for this and that disease, as has become quite customary in many of our large cities.

What would our professional fathers, we wonder, think of the physician who covered the walls of his waiting-room with pictures of his patients, duly signed with such dedications as: "To the great Dr. —;" "To the only Healer;" "To the distinguished, the only surgeon;" "To my savior Doctor —." What would they think of a physician who pins notes from distinguished patients on his waiting-room door that they may be read by and duly impress those seeking his *distinguished* services? What would the old physician say of a doctor who gave his patients charts (with the doctor's name inscribed thereon in large letters) upon which the outline of the patient's heart was mapped out "before the treatment," "during the treatment," and "when discharged—cured." As a matter of fact the patient's condition (the charts to the contrary notwithstanding) had grown worse and worse and he sought another physician to find out what the *new* ailment was!

What would the older men think of physicians who, like railroads, announce special rates to professionals, preferring a hundred patients at \$3 a piece, with a picture, autograph, and inscription, which would serve to advertise when hung up in a proper place, to twenty-five at \$5 and no lithograph.

These examples are all of a kind, and could be indefinitely multiplied. Medicine to these men is a business, and the secret of business success being, as the late Mr. Barnum remarked, "to advertise,"

they follow the distinguished circus man to the best of their ability.

The man of whom we are speaking never allows the "Doctor" to be forgotton; his shop is ever with him. We are reminded in this connection of what Mr. Hayward says of Sir Henry Holland, that scholar, physician, and gentleman, "That, except when humanity required, he discreetly suppressed 'the doctor,'" and in speaking of his reticence about his patients, adds: "He rightly deemed that the physician's lips should be sealed like the confessor's." How strange this must read to some of our professional friends who so love to tell of those they are and have been treating!

That the trade idea in medicine is abroad in the land, or that advertising and unprofessional methods are resorted to by many men—even members of reputable medical societies—or, finally, that the old spirit which gave the older physicians and their profession so high a place in the community is dying, if not already dead, we suppose will hardly be denied.

And the remedy! He who runs may read. The advertising doctors are not likely to mend their ways—there is too much money in it; but it seems to us that a little, or rather a good deal of, discipline administered by medical societies might have a salutary effect on the particular kind of quack to which we have alluded.

#### THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION AND THE MARINE HOSPITAL SERVICE.

THE latest plea for a Department of Public Health in the *Journal of the American Medical Association* of November 20th, is so acrimonious and biased in many of its statements that we must protest against it as unbecoming the journalism of a liberal profession. Personal abuse is no argument, nor is misstatement of facts a help to the establishment of truth and right.

The necessity for a more authoritative, Federal supervision of general matters of public health is admitted by all. The question at issue is, shall a new department be created, with new officers and indefinite expenditures, or shall these public health functions be assigned to an already existing branch of the Treasury Department—the Marine Hospital

Service, a body of sanitarians already organized, disciplined, tried, efficient, and only needing more authority and the frank and manly cooperation of local boards of health to fulfil all the requirements of a national guardian of public health.

The organization of a National Board of Health with a departmental officer at its head, is an untried experiment. The plan proposed in the *Journal of the American Medical Association* establishes a deliberative body which in number and diversity of character would be equivalent to a third house of Congress. On the other hand, the Marine Hospital Service is an organization whose work is on record and whose future in the larger capacity of national guardian of public health can therefore be foreseen. In the face of an epidemic *action* is what is needed, not deliberation. In what way can this be better accomplished than by an organized body of men under military discipline and military orders?

Accusing the Marine Hospital Service of inefficiency and decadence proves nothing, and the characterization of its Supervising Surgeon-General as "indolent, arrogant, tyrannical, and playing for social prominence to the disregard of the best interests of his service" is likely to stamp the writer as more jealous than truthful. Neglecting the personal accusation because of its absurdity, let us take up the more serious charge that the Marine Hospital Service, as a conservator of public health, is inefficient. Its work in a recent epidemic is referred to as "the miserable fiasco at Brunswick." We shall here briefly outline the history of the yellow-fever epidemic of 1893 at Brunswick, and leave it for our readers to conclude for themselves, first, whether the Marine Hospital Service can be held responsible for the admission of the disease and, secondly, whether its management of the epidemic was a "fiasco."

In the first place it is now known that yellow fever occurred, but was not reported, in Brunswick in October, 1890. The epidemic of 1893 has been traced to gross violations of Treasury regulations by the local quarantine authorities. Several vessels from Cuban ports, instead of stopping at the Marine Hospital Station at Sapelo Island, as they should have done, went directly to Brunswick where they were dealt with by the local health authorities. It was the duty of the local quarantine officers to send these vessels back to Sapelo Island at once. This

was not done. The first death occurred June 25th, and the victim was the master of a probably infected vessel from Havana, which was disinfected by the local health officers and released in two days. Here again quarantine regulations were disregarded. The vessel should have been returned to Sapelo where it would have been disinfected and detained for at least five days instead of two. Had these precautions been taken, the master's disease would have been diagnosed and he would not have been allowed to go to Brunswick and stay at a hotel, which the local authorities permitted him to do.

Before July 17th, two other probably infected vessels arrived from Cuban ports with sand and earth ballast. The crews after discharging this ballast returned in each case to Brunswick and scattered about the city.

When it was found that the local authorities could not or would not enforce strict quarantine regulations, Marine Hospital Surgeons were ordered to the scene. Assistant Surgeon Brantham, M. H. S., took charge of the local quarantine station July 31st, and died of yellow fever August 20th. He acquired the disease there and the probability is that the epidemic was due to the filth brought as ballast in vessels from Cuba. As soon as the first case was reported in Brunswick, the infected areas were depopulated, cordoned, and disinfected. When the disease became epidemic a comfortable detention camp was established twenty-five miles out of town to which refugees might go; revenue cutters and small boats patrolled the water-ways about the city; a cordon of land-guard posts surrounded the city at a distance of four miles, and a system of train-inspection was established.

The result of the vigorous enforcement of these precautions by the Marine Hospital Service was, that besides Brunswick and its environs, only the town of Jesup became infected, and this infection occurred before the Marine Hospital Service assumed control. The number of cases of yellow fever occurring during the epidemic was 1070, of which 46 were fatal; certainly a most creditable showing when one considers that the disease appeared early in the season and found the city in a most unsanitary condition.

Indeed, the successful manner in which this epidemic was confined and suppressed by the Marine Hospital Service is in striking contrast to the dilettante methods of the local quarantine officers.

## ECHOES AND NEWS.

*Quinin and the Klondike.*—A physician of Louisville, Ky., is reported as making a fortune in the Klondike gold fields by selling quinin capsules at \$3 apiece.

*Scarcity of Dissection Material at Cambridge.*—It is said that the study of anatomy at Cambridge (Eng.) is seriously hampered by the difficulty experienced in providing subjects for dissection.

*The Faculty of Medicine of Paris.*—According to the *British Medical Journal*, the decree excluding foreign students from the medical classes of the Faculty of Paris will shortly be withdrawn.

*Kangaroo Ailments.*—It is said that kangaroos in captivity suffer greatly from enormous corns, several ounces in weight, and difficult to remove. In damp weather they also develop gouty symptoms.

*Woman's Hospital Society of New York.*—The following officers have been elected for the ensuing year: President, Paul F. Mundé, M.D.; vice-president, Leroy Broun, M.D.; secretary and treasurer, James N. West, M.D.

*Spain Quarantines against Pensacola.*—Owing to the death of a man from yellow fever at Pensacola, Fla., a royal decree has been issued in Spain ordering that all vessels arriving at Spanish ports from Pensacola be quarantined.

*Music and Measles.*—An orchestra composed of women was to give a concert at Stroudsburg, Pa., last week, but when the time came not one of them appeared. Inquiry revealed the fact that every member had been stricken with measles.

*Gloves in Surgery.*—Wolfier advises the use of gloves in all septic and aseptic operations, and also for making examinations of the mouth, rectum, and vagina. He employs the ordinary military glove of leather, which he keeps in three per cent. carbolized glycerin.

*New Sources of Malaria Infection.*—Dr. S. Pulverenti of Naples claims that he has established the fact that malaria can be transmitted in the dust of cereals and textile plants, flax, hemp, etc. It is, therefore, possible for malaria to be contracted without the presence of heat, moisture, or soil.

*Death-Rate for Week Ending November 27.*—The Bureau of Vital Statistics of the New York Health Board reports 611 deaths, including 11 from measles, 6 from scarlet fever, 18 from diphtheria, 5 from typhoid, 37 from heart disease, 88 from pneumonia, 88 from phthisis, and 51 from kidney disease.

*Bilharzia Ova.*—At a recent meeting of the London Pathological Society, live Bilharzia ova in the process of hatching were shown under the microscope. The parasites were obtained from a soldier invalided home from Mashonaland, where it is supposed he contracted the disease while bathing.

*Healthfulness of Cycling.*—After a prolonged consideration of the subject, the Paris Medical Society has come to the conclusion that cycling is excellent exercise for healthy people, is very beneficial for those suffering from nervous disorders, but is undesirable for delicate people who are liable to suffer from over-fatigue.

*Milk and Disease.*—In a communication made by Professor Delépine at a recent meeting of the Pathological Society of Manchester, England, in regard to the conditions under which cow's milk becomes pathogenic, *time and temperature* were given as the most important factors in rendering milk unfit for consumption.

*American Association for the Study and Cure of Inebriety.*—The twenty-seventh annual meeting of this Association will be held December 8, 1897, in the Hall of the Washington Home, 41 Waltham street, Boston, Mass. Many men prominent in the study of this question both in this country and abroad, will take part in the meeting.

*Obituary.*—The death is announced of Dr. P. Castells y Bellespi, Sanitary Inspector of the Province of Barcelona, Spain. Death was due to typhoid fever, which he contracted while engaged in combating an epidemic of this disease. He was much interested in preventive medicine, was editor of the *Revista de Higiene y Policia Sanatoria*, and was also secretary of the Editorial Committee of the *Gaceta Medica Catalana*.

*Yellow-Fever Statistics.*—The Marine Hospital Service reports the total number of cases of yellow fever up to November 19th as follows: Louisiana, 1847; Mississippi, 1625; Alabama, 740; Tennessee, 52; Texas, 16; Illinois, 4; Georgia, 3; Florida, 1; Kentucky, 1. Total number of cases, 4289, of which 446 proved fatal, or an average of about 10½ per cent. In Mississippi the death-rate was less than 6 per cent.; at New Orleans, 14½ per cent., and something less than 13 per cent. at Mobile.

*An Antiseptic Dwelling.*—Dr. W. van der Heyden, the bacteriologist, has recently had constructed an antiseptic residence at Yokohama, Japan, the walls of which are made of large blocks and slabs of glass mounted in metal and hermetically closed. Ventilation is provided for by small openings near the ceiling of the upper story, which allow egress of air without permitting the entrance of the outer air, which is exclusively supplied through a pipe, extending some distance beyond the house, into which it is forced, filtered, and sterilized by passing through glycerin.

*Obituary.*—Dr. Cornelius Olcott died recently of pneumonia at his home in Brooklyn, N. Y., in the sixty-ninth year of his age. He was born in Jersey City, N. J., of English parents, and was a descendant of Thomas Scott, one of the first settlers of Hartford, Conn. He studied medicine at the University of the City of New York, graduating in 1849. During the war he was a surgeon under General McClellan at Fortress Monroe, and later under General Grant at Fredericksburg. At the time of his death he was a member of the Kings County Medical Society.

*The Philadelphia Medical Journal.*—It is announced that the opening of the new year will witness the commencement of a new weekly medical periodical in Philadelphia, to be issued under the auspices of the leading members of the profession, including a number of gentlemen whose reputation is world-wide as teachers in the various colleges of that city. The editorial management will be entrusted to Dr. George M. Gould, whose experience and well-known ability give assurance that the new periodical will make its mark. We extend to our forthcoming contemporary the right hand of fellowship, for the harvest field is wide and there is room for all earnest laborers.

## OBITUARY.

### RESOLUTIONS ON THE DEATH OF CHARLES H. AVERY, M.D.

AT a stated meeting of the Medical Society of the County of New York, held at the New York Academy of Medicine, Monday, November 22, 1897, the following resolutions were adopted:

WHEREAS, Dr. Charles H. Avery, our esteemed and honored Secretary, has been removed by death, which occurred November 2, 1897,

*Resolved*, That we hereby express our deep sense of the loss which our Society has sustained in his decease; that we desire to bear testimony to the sterling integrity of his character, to his genial social qualities, and to his devotion to the interests of this Society, which he has so long, faithfully, and efficiently served in the capacity of secretary; that a copy of these resolutions be transmitted to the medical journals of this city, and an engrossed copy be sent to the family of our deceased associate.

JOHN L. WARREN, M.D.,  
WILLIAM E. BULLARD, M.D.,  
Committee.

## CORRESPONDENCE.

### TAPEWORM AS A CAUSE OF INTESTINAL PERFORATION.

To the Editor of THE MEDICAL NEWS.

DEAR SIR: At the suggestion of Dr. H. N. Mateer, Professor of Biology in Wooster University, I enclose a short description of an instance of intestinal perforation in a rabbit by means of a tapeworm. I consider the case an odd one, and so submit it to your criticism with the hope that it may be deemed worthy of publication.

Upon opening the abdominal cavity of a wild rabbit a broad tapeworm, twenty-two or twenty-four inches in length, was found in the anterior, left, lateral portion of the cavity, between the colon and the greater curvature of the stomach.

Examination proved that the worm had escaped from the alimentary canal through a hole in the small intestine at a point about eighteen or twenty inches from the duodenal

loop. The wound from which it had escaped included half the circumference of the small intestine, the edges of which had the appearance of having been lightly attached to some other portion of the viscera, and were everted and resembled a circular lip. Very slight inflammation was present at this spot, but no other indications of an inflammatory process could be found elsewhere in the abdominal cavity. Fecal matter which had escaped from the wound was found in all parts of the cavity, about the stomach, and in the recesses surrounding the bladder and uterus. The greater part of the fecal matter consisted of minute, clean particles of cellulose whose cleanliness would seem to indicate that they had been free in the cavity for a considerable time. The cecum, colon, and rectum all contained the normal quantity of matter. When killed, the rabbit was running rapidly and gave no outward appearance of being weak or disabled.

W. F. SAYBOLT,  
Biological Department, University of Wooster.  
WOOSTER, OHIO, November 20, 1897.

#### SEWAGE FARMS.

To the Editor of THE MEDICAL NEWS.

DEAR SIR: The editorial which appeared in THE MEDICAL NEWS of November 6th fails to point out a very important factor: A sewage farm cannot be successfully maintained when established haphazard upon soil of every sort. It makes a great difference whether or not the latter is sandy, and if so, of what variety. If established upon an impervious clay subsoil, which is nearly level, the results will be entirely different from those attained when the surface has a greater slope and is capable of soaking up and draining away such materials.

Furthermore, certain soils are the natural habitat of the nitrifying organisms, the office of which appears to be the destruction of pathogenic bacteria. There is great danger that the crude method of taking water from any source which happens to be convenient as the basis of a public water-supply, will be repeated in attempting to dispose of sewage by the method proposed.

M. A. VEEDER, M.D.

LYONS, N. Y., November 27, 1897.

#### MEDICAL REQUIREMENTS IN THE STATE OF WASHINGTON.

To the Editor of THE MEDICAL NEWS.

DEAR SIR: I am in receipt of many inquiries concerning the medical laws of the State of Washington. In reply I would say that all persons intending to practice Medicine or Surgery in this State are obliged to pass an examination before the State Board of Medical Examiners.

These examinations are held the first Tuesday in both January and July. The January examination is held on the west side of the Cascade Mountains and the July on the east side. No temporary certificates are granted, and no exception is made to the rule.

F. H. COE,  
Secretary of the Medical Society of the State of Washington.  
SEATTLE, WASHINGTON, November 25, 1897.

#### A CORRECTION.

To the Editor of THE MEDICAL NEWS.

DEAR SIR: In my article published in your journal of November 13th, it was stated that during 1896 252,548 steerage passengers were inspected at this station. It should have read that this was the total number of passengers of this class who came to the United States during that period (1896), and out of this number 190,928 were inspected at this station. I desired to show that the great bulk of these people came to the Port of New York.

Very truly yours,

A. H. DOTY, M.D.

NEW YORK, November 23, 1897.

#### OUR PHILADELPHIA LETTER.

[From our Special Correspondent.]

THE HEALTH PROTECTIVE HOSPITAL FOR CONTAGIOUS DISEASES—DEATH OF DR. HARRISON ALLEN—COLLEGE OF PHYSICIANS OF PHILADELPHIA; SECTION ON OPHTHALMOLOGY; SECTION ON GYNECOLOGY—THE NEW KENSINGTON HOSPITAL FOR WOMEN—FREE LABORATORY DEMONSTRATIONS AT THE PHILADELPHIA POLYCLINIC.

PHILADELPHIA, November 29, 1897.

A MEETING was held on November 15th, in the office of the Mayor of Philadelphia, by a number of prominent laymen and physicians interested in the establishment in this city of a pay hospital for contagious diseases, and such advance in the project was reported that it is believed that the institution will be built in the near future.

The sudden death on November 14th of Dr. Harrison Allen, Emeritus Professor of Comparative Anatomy in the University of Pennsylvania, has removed another of the fast thinning group of men to whom Philadelphia owes much of her prominence in scientific matters. The local scientific bodies with which Dr. Allen was connected have passed appropriate resolutions upon his death.

A stated meeting of the Section on Ophthalmology of the College of Physicians was held on November 16th. Dr. William Campbell Posey presented a case showing metastatic iridocyclitis in both eyes, causing blindness; the exciting cause of the iridocyclitis was held to be an intense inflammation of the nose and its accessory sinuses resulting from long-continued inhalation of sulphuric-acid fumes to which the patient had been exposed. The determination of the exact cause of the blindness in this instance happened to be important, inasmuch as the patient had been an unsuccessful plaintiff in a damage suit against her employer, in whose factory she was obliged to expose herself to the acid fumes. Dr. William F. Norris exhibited a patient having a cyst of the orbit, causing a downward and outward dislocation of the eye on the affected side. Dr. H. F. Hansell showed a case of traumatic paralysis of the third nerve due to a gunshot wound on the nasal side of the orbit, without injury to either the eyeball, or to the optic nerve; a skiagraph of this case showing the foreign body (a No. 4 shot) *in situ* was shown by Dr. W. M. Sweet. Dr. George C. Harlan reported a case of transient pulse in the retinal artery, induced by the application of homatropine; and in his dis-

cussion of the case drew attention to the possible employment of this drug in the diagnosis of doubtful cases of glaucoma. Dr. G. E. de Schweinitz made some remarks on cases of central amblyopia, and showed field-charts of five different varieties of this condition. One class of monocular central amblyopia in certain cases of compound hyperopia without the presence of squint was referred to as being a likely cause of reduced vision. Dr. Edward Jackson read a paper on the technic of needle operations upon the lens and capsule, suggesting that most of the aqueous humor be allowed to escape, and as the lens comes close to the cornea to enter the needle through the capsule, making as small an opening as possible, and stirring up the lens substance freely with the point of the needle. By this maneuver the lens substance does not escape into the anterior chamber and set up an irritation.

At the last stated meeting of the Section on Gynecology of the College of Physicians of Philadelphia, held on November 18th, Dr. Edward P. Davis reported a Cæsarian section for impossible labor, in a woman with a contracted pelvis,  $7\frac{1}{2}$ -months pregnant, with recovery of the mother, and safe delivery of the child. He also reported a symphysiotomy for a similar condition of the pelvic canal, and in this operation it was found that it was impossible to separate the pubic symphysis by the use of either the Galbati knife, or the bistoury, so that a saw, made after a model devised by the speaker, was used for the purpose, with immediate effect; ten months after the operation firm union had taken place. Dr. George E. Shoemaker reported the clinical histories and operation-notes of three cases of fibroid uterus, of an instance of pyosalpinx intermittently draining through the uterus, and of two cases of ovarian cysts. Dr. H. D. Beyea reported a case of acute strangulation of a prolapsed uterus and vagina, for the relief of which condition vaginal hysterectomy was performed; and Dr. J. M. Baldy related two similar cases, in both of which he had preferred to operate by the abdominal, rather than by the vaginal route.

Final touches to the new Kensington Hospital for Women, which has been reconstructed during the past summer, have been given, and the building has been formally thrown open for inspection. The new structure is of fire-proof construction throughout, provides for the accommodation of forty patients, and contains every improvement for the conduct of gynecologic surgery under the best auspices. It will be recalled that the hospital was founded in 1883, by Dr. H. A. Kelly of Baltimore, and at present is under the direction of Dr. C. P. Noble, his successor as surgeon-in-chief.

A series of laboratory demonstrations, free to physicians and students of medicine and lasting from November 15th until December 11th have been begun at the Philadelphia Polyclinic.

For the week ending November 20th, the total number of deaths reported in this city was 339, of which 103 occurred in children under the age of five years. Compared with last week, the mortality showed a decrease of 45, and with the corresponding week of last year, a decrease of 35. There were 230 new cases of contagious disease reported, as follows: scarlet fever, 56 cases, 3

deaths; diphtheria, 140 cases, 28 deaths; and enteric fever, 34 cases, 4 deaths.

The number of deaths occurring in this city for the week ending November 27th, reached a total of 394, an increase of 55 over the preceding week, and an increase of 5 over the corresponding week of last year. Of the total deaths 124 occurred in children under five years of age. New cases of contagious disease numbered 239, as follows: Diphtheria, 130 cases, 32 deaths; scarlet fever, 55 cases, 4 deaths; and enteric fever, 54 cases, 3 deaths.

#### OUR BERLIN LETTER.

[From our Special Correspondent.]

**DR. FRANK OF CHICAGO READS A PAPER BEFORE THE BERLIN MEDICAL SOCIETY—ATTENDANCE AT THE MEDICAL SOCIETY'S MEETINGS—TWO JUBILEES OF PROFESSOR VIRCHOW—A CASE OF SPONTANEOUS DELIVERY IN THE COFFIN AFTER DEATH AND BURIAL—THE TREATMENT AND BACTERIOLOGY OF WHOOPING-COUGH.**

BERLIN, November 20, 1897.

DR. FRANK of Chicago recently read by special invitation a paper before the *Berliner Medicinische Gesellschaft* on his absorbable button or coupler for intestinal anastomosis. It was discussed by Professor Landau, who has witnessed several experiments with the button upon animals. He has employed it in one case upon a human being, and was very much pleased with the result.

Since Czerny's announcement at the Congress at Moscow that he considered the Murphy button the best procedure for intestinal anastomosis the question of adopting some such mechanical aid has been a living one in Germany. *Magni nominis umbra*—the shadow of a great name stands for much in German surgery, and it is probable that for some time to come most anastomoses will be accomplished with the aid of some such coupling apparatus. Dr. Frank's invention is like Murphy's button in most respects, except that it is made of an absorbable material—decalcified bone—which ought to prove a very advantageous addition to the good qualities of the Murphy button, and so has attracted a good deal of attention here in Berlin.

The Berlin Medical Society has about 1100 members, and holds its meetings once a week. They are invariably presided over by Professor Virchow, begin exactly on the minute announced, 7.30 P.M., and are regularly attended by from 500 to 800 members. There are a good many qualities here that medical societies in other countries, especially our own, may well envy. This is particularly true of the large attendance which is really typical of the profession in Berlin, and is an index of the intense earnestness of purpose and lively interest in things medical which characterizes German physicians in general. Not the least noteworthy item is the invariable presence of the President, Professor Virchow, who, at the age of seventy-six, is still ready to learn, but even more ready to encourage others, by his personal example, to keep up with the advances in medicine by hearing the latest discoveries described and discussed.

Two Virchow Jubilees have been celebrated within the last few days. The one the celebration of the fiftieth year of his career as a teacher in the University of Berlin, the other the appearance of the Jubilee number of *Virchow's Archives*.

A committee was chosen to present congratulations to the aged Professor. It was composed of a number of distinguished teachers in the University, and was headed by the Rector Magnificus and the Dean of the Medical Department. Professor Virchow, when congratulated by the Dean upon the wonderful success of his teaching career, answered with characteristic modesty. His success, he said, had not been due so much to his own work as to the early realization that the field of scientific medicine was so great that one man, single-handed, could accomplish nothing that would produce an effect upon the current of medical thought, and so he had drawn around him a school whose work had been wide and important enough to make an impression. He had been more fortunate than others in the associates who had come to him, but it was to them and not to him alone that the glory of success was due.

The Jubilee number of the *Archives* contains as a frontispiece a picture of the Master himself, and opens with a few words from him commemorative of the fiftieth year of the existence of the *Archives*. He says, with pardonable pride, that it has accomplished much more than its prospectus dared claim; that its long series of volumes (150 in number) form a rich and ever richer source of scientific medical instruction; but more than all this has been its influence in making clear to the world the essential unity of medical science. It is this that has been the main aim of its editor during the long years of its existence, and it is the accomplishment of the purpose that is his pride and strength in his old age.

As he states, the Jubilee number appears without pomp or ceremony. Its scientific spirit is too serious for that, but it constitutes, in the articles contained, the best proof of how it has ever combined the practical with the purely scientific in medicine. While founded on original work of the highest order, the articles on "The Production of Amyloid Degeneration," "The Pathological Anatomy of the Malpighian Bodies in the Kidney," "The Mechanism of Urination and of Bladder Closure," "The Connection between Section of the Vagus and Changes in the Heart-Muscle," and finally, "The Quantitative Estimation of Glycogen in the Liver" (by a compatriot, by the way, Dr. A. E. Austin of Boston), are all such as must be of lively interest to the general practitioner as well as to the scientific seeker after truth for its own sake.

An account of one of the rare cases of spontaneous delivery of a child some days after the death of the mother appeared in the last number of the *Vierteljahrsschrift für Gerichtliche Medicin*, and has given rise to considerable comment. The case is very well authenticated, as the body passed through the hands of medical and legal public officials before burial, so that the details are a matter of legal evidence.

The woman had been found dead in the river under

circumstances which seemed to point to suicide. Careful examination of the body was made to be sure that there was no evidence of injury previous to the immersion, and it was noted that she was in an advanced stage of pregnancy. Ten days later circumstances came to light which seemed to point to foul play, and the body was exhumed for further and detailed examination.

A tumor was found projecting from the vulva which had not existed at the time when she was placed in the coffin. This was found to consist of the completely inverted uterus and vagina. A little below it, lying upon the lower limbs, was a fetus 36 cm. in length.

Dr. Bleich, who reported the case, discussed the possible causes of the delivery, and considered that the usual causes do not afford a sufficient explanation. Neither the development of gas within the abdomen and the consequent pressure exerted upon the fundus uteri nor tonic contraction of the uterus due to *post-mortem* rigidity are sufficient explanation of this remarkable phenomenon, as far as he is concerned, neither nor both of them can account for it, if one is to consider the uterus as being in its ordinary *post-mortem* condition. He considered it probable that during the death agony there had been active contractions of the uterus which had almost accomplished the extrusion of the child, and then, that the pressure of putrefactive gases in the abdomen and the further tonic contraction of the uterus were sufficient to have completed the process of delivery.

In any case, the occurrence of an authentic instance of delivery after burial where there is not the slightest chance for doubt as to the mother's death before burial ought to prove a great source of consolation to those who have found in the published reports of such cases some confirmation of their fears as to the dread possibility of being buried alive.

Professor Hübner, in a recent lecture on whooping-cough, began with the question of treatment by asking the student who was going over a case with him (it is a regulation of the University here that a student must always study the case with the professor at a clinic), "What is the best remedy we have for whooping-cough?" The immediate answer was, "Bromoform." "But does it do any good?" Almost as immediate came the answer, "No," at which there was a titter promptly suppressed by the Professor, who said, very seriously, "That is just the state of the case; it is our best remedy, but how much good it really does is problematic. In some cases it seems to be of real service, but there are many in which it does not seem to have the slightest effect on the course of the disease."

To the question, "How long does whooping-cough usually last?" the answer was the usual text-book formula, "Four to six weeks"; but Professor Hübner assured the embryo doctor that "if all his patients with pertussis were better in two to three months he would be indeed lucky, while some of them would last the year out, despite his best efforts." Notwithstanding advances in medicine, the therapeutics of most of the children's diseases are no better than they were half a century ago. It was hoped that the demonstration of the bacteriologic cause of whooping-cough

would give a foundation for rational therapeutics; but the bother seems to be, so far, that the discoveries of the microbe of the disease have been too frequent and varied to be of practical value, and the claims of discoverers too little substantiated by later investigators to as yet awaken the hope that specific treatment may soon be possible. There are claims for two microbes of the disease here in Berlin. The last one described resembles the diphtheria bacillus, and has been found in the sputum of patients. The secular press have taken it up, and considering that morphology corresponds to pathogeneity, have been exploiting the fact that the diphtheria bacillus, under two different forms, produces both diseases to no little discomfort of anxious parents whose children, or neighbor's children, have whooping-cough. Verily, the press has become a wonderful disseminator of truth!

The other microbe described here, and assigned as the cause of whooping-cough, is a coccus. It is not easily found in the sputum, but may be cultivated by inoculating tubes of agar with portions of the minute, clump-like masses which occur in the sputum of patients having this disease. These are usually coughed up at the end of a paroxysm, and it is generally considered that it is their tendency to persistently cling to sensitive portions of the mucous membrane which causes the paroxysms.

The colonies are closely agglutinated together in cultures. A whole colony must be taken for examination, and is found to consist of closely packed cocci. The agglutination in the media, resembling the tenacity of the clumps in the sputum, is one of the characteristics of the microbe, and is considered proof of its connection with the disease.

In France, however, another form of coccus is claimed as the bacterial cause of the disease, while it may be noticed in the report of the recent meeting of the British Medical Association at Montreal that there is an English claimant for the specific pathogeneity of a short bacillus—*Si quid vis excipias.*

#### TRANSACTIONS OF FOREIGN SOCIETIES.

*London.*

INVESTIGATION OF SOME OF THE DISORDERS OF THE HEART—LOCALIZATION OF RHEUMATISM AND CHOREA—PERMANENT CURE OF PYLORIC STRICTURE BY LORETA'S OPERATION—HEMIPLEGIA IN WHOOPING-COUGH—ONE-SIDED BLUSHING—TREATMENT OF UTERINE DYSMENORRHEA.

AT the opening session of the Medical Society, October 11th, the president for the coming year, SANSOM, gave an address upon the *Investigation of Some of the Disorders of the Heart*. In the examination of the heart it is important to keep the patient as tranquil as possible. On this account it is better to examine patients who come to a physician's office in their ordinary clothing before asking them to disrobe. More attention than is usual should be directed to the nervous system, especially to its relation to the cardiac reflex. Some practical points were given which are worthy of especial notice:

(1) Protrusion of the eyeballs, retraction of the upper lids, or tremor of the latter when the patient is told to

gently close the eyes, are often present in the early stages of Graves' disease, being associated with the tachycardia. They may also be found in other conditions, and are indicative of disorder or distress of the heart. (2) An examination of the auditory mechanism and of the pharyngeal tract is important, as trouble in one or the other of these situations may cause reflex irritability of the heart. (3) The pulse at the wrist should be carefully palpated, and its lessons supplemented by auscultation at first practised with the clothing undisturbed. (4) If fine muscular tremors of the trunk, limbs, or face are observed, there is probability of the existence of a disorder of the nervous mechanism of the heart, such as Graves' disease. (5) Afterward the chest should be examined with all the clothing removed. The author also discussed the significance of the different varieties of cardiac murmur.

At the meeting of the same Society, October 25th, CURTON read a paper on the *Localization of Rheumatism and Chorea*. Nearly six hundred cases were tabulated, the points noted being the state of health before the attack, the assigned causation, the joints first affected, the occurrence of acetonuria, indicanuria, and constipation. The previous health was not good in the large majority of the cases. The causes assigned were chiefly exposure to the weather and injuries, the joints of the limbs which were chilled or injured being the first to suffer. The "toxin-local-injury" theory has been held by Duckworth and others. The toxin may be glycocin; if so, the micro-organisms will not be found in the blood, joints, etc., where they have been sought. From a study of 150 chorea patients no light was thrown upon the connection of arthritis and chorea, nor was any explanation advanced why the toxin settles in the brain when the latter disease occurs in rheumatic individuals. In the tabulated cases, however, there was no instance of chorea primarily caused by a chill, and no case of arthritis primarily caused by fright.

MACKENZIE said that rheumatism is expressed not only by arthritis and pyrexia, but also by inflammations of the serous membranes, cutaneous eruptions, subcutaneous nodules, and, of course, chorea. As a rule chill and wetting acting as localizing factors determine affections of the joints, while chorea is chiefly excited by fright. Age is another localizing factor. Chorea is common in children; arthritis is rare.

SANSOM disagreed with the opinion of Duckworth that arthritis and chorea are two manifestations of the same morbid process.

At a meeting of the Clinical Society, October 8th, WHITE and LANGTON related a case in which *Loreta's operation was performed for relief of stricture of the pylorus*. The patient was a man aged twenty-eight years, who during four years after recovery from typhoid fever, suffered from severe gastritis. Medical measures did not improve his condition, and upon opening the stomach, the pylorus was found to be so contracted that it admitted only a No. 1 catheter. Larger and larger instruments were cautiously passed, until the pylorus admitted two fingers. The wound in the stomach was then closed, and the patient entirely recovered. At the present time,

three years after operation, he is still in perfect health, and able to eat anything. The case was brought forward to show the success which might follow Loretta's operation; though it has been superseded by pyloroplasty procedures.

GOULD said that the chief objection to Loretta's operation is the probability of a speedy recurrence of the symptoms. He operated three times upon a patient for simple stricture of the pylorus, at intervals of a few months. Each time there was temporary relief, but later return of symptoms, and each time he found that the adhesions were more extensive than before. The patient, a few months after the third operation, was in a worse condition than at first.

ABRAHAMS showed a *child aged two years suffering from hemiplegia*, which began in the first days of a whooping-cough of moderate severity. One evening she was suddenly seized with an attack of right-sided convulsions and became unconscious. The pupils were dilated and insensitive to light, and there was marked nystagmus. The temperature during the attack was 103° F. Two days later she presented complete right-sided hemiplegia, from which she has since partially recovered. The case was considered to be one of cerebral hemorrhage.

WEBER showed a *curious case of one-sided blushing following eating*. The blush involved the cheek and ear, and in the cheek it was associated with perspiration. The young man so affected, had formerly a suppurating gland behind the ear, and Weber explained the blushing by the supposition that some of the vasoconstrictor branches of the cervical sympathetic were involved in the scar, and that when the parotid gland became distended during mastication it dragged upon or compressed these branches.

At a meeting of the British Gynecological Society, October 14th, KEITH read a paper on the *Treatment of Uterine Dysmenorrhea*. The pain in these cases is caused not by the stricture, but by the bending of the uterus plus the thickening of the uterine mucous membrane, and also by the congestion naturally present at the commencement of menstruation. General treatment should first be employed, chiefly with a view to keeping the patient warm and thus preventing internal congestion. For the severe cases in which all remedial measures have failed, attention was directed to local treatment by stem pessaries, dilatation, and division of the cervix (Dudley's operation), and by division with stitching (Apostoli's operation). The advantages of the last two procedures are not so well known as they should be. A number of the members of the Society mentioned good results which they had obtained from combined dilatation and suture of the cervix.

#### Berlin.

#### CLINICAL EXPERIENCE WITH LUMBAR PUNCTURE, AND THE CONDITIONS IN WHICH IT IS OF VALUE IN DIAGNOSIS AND TREATMENT.

At the session for Internal Medicine, October 18th, STADELMANN described his *clinical experiences with lumbar puncture*. The observations extended over about one hundred cases. In tuberculous meningitis (sixteen cases) the fluid in the spinal canal is usually under high

pressure, but there is very little of it. The spinal fluid is sometimes clear, containing only a few flakes of fibrin or more rarely leucocytes, but it is sometimes cloudy or even purulent or bloody. Proof of the existence of tubercle bacilli in the fluid may be of great diagnostic value. The speaker had found them in only twenty-two per cent. of the cases; either because the tubercles were still intact, or situated only in the meninges of the brain, or in the deeper portions of the pia, or else because these were instances of the so-called *meningitis serosa*, which latter is with difficulty distinguished on clinical grounds from tuberculous meningitis.

In purulent meningitis (seven cases) the fluid is under pressure and contains various kinds of cocci, but it is occasionally free from bacteria, and the case can then with difficulty be differentiated from one of tuberculous meningitis. The clinical symptoms are far more reliable than the lumbar puncture, the value of which from a diagnostic point of view, is at present over-estimated. The bacteriologic examination must be made at once, otherwise the bacteria will die and not appear in the cultures. Also, in cases of suppurative meningitis, the fluid will sometimes be sterile for reasons similar to those given above; hence, only in those cases in which a positive result is obtained can the differential diagnosis be made.

In abscess of the brain the amount and character of the fluid and the pressure under which it exists are subject to variations. Even a complicating meningitis cannot be determined with accuracy. A negative result is no indication that it does not exist. Sometimes the spinal fluid is increased in thrombosis of the sinus.

In acute infectious diseases, especially in pneumonia, suspicion of a complicating meningitis may be confirmed by lumbar puncture, if pus or pneumococci can be proven to exist in the spinal fluid. In cryptogenic septicemia, streptococci are found in the spinal fluid just as in the blood. Lumbar puncture is sometimes of value in obscure cases without history; for example, in unconscious or delirious patients. In tumors of the brain, lumbar puncture as a therapeutic measure has been vastly over-estimated. Its action is in fact unfavorable, not to speak of the sudden death which may follow. The diagnostic value of this procedure is never greater than that of the clinical symptoms.

In cerebral hemorrhage, if the spinal fluid contains blood, one must first assure himself that it is not derived from an accidentally punctured vein; hence, the puncture must be repeated in several places. In cerebral hemorrhage, the blood may be from the surface of the brain or from a ventricle. An evenly tinged spinal fluid may be looked upon as evidence of such bleeding. It may be of prognostic value to determine in this manner that the blood has burst into a ventricle. It is not possible to make a differential diagnosis between apoplexy, softening, and embolism by means of lumbar puncture. The bad effect of brain-pressure, as the result of hemorrhage, cannot be relieved by this means. In fact, puncture may cause the hemorrhage to begin again.

In hydrocephalus, encephalitis hemorrhagica, uremia, encephalopathy saturnina, etc., lumbar puncture gives

only unsatisfactory results. Puncture shows that in epileptic attacks pressure is increased. In pneumonia, scarlatina, typhoid, and other diseases, the spinal fluid is increased. The observer has never seen any therapeutic result follow lumbar puncture. To reiterate, it has a diagnostic value only if a positive bacterial cause is isolated. Unless bacteria are proved to exist, one dare not conclude from the cloudiness of the fluid that meningitis is present. Above all things lumbar puncture is not to be depended upon as a means of diagnosis to the neglect of clinical symptoms.

## REVIEWS.

**THE DISEASES OF THE MALE URETHRA.** By R. W. STEWART, M.D., M.R.C.S. New York: William Wood & Co., 1896.

IT would be manifestly unjust to expect in a work of the compass of that before us a complete and exhaustive treatise on the fruitful subject with which it deals. In a work, however, in which it was the declared "object of the writer to place before the reader the diseases of the urethra as viewed from the standpoint of modern knowledge," it is decidedly disappointing to find no mention of the Gram stain as a differential test for the gonococcus, and only the most meager references, without any description of the methods, to the possibility of cultivating that organism on culture media.

Not less disappointing are the chapters on the treatment of gonorrhea. It is eminently proper, eminently conservative, but it might all have been written twenty years ago. Surely, the modern treatment of gonorrhea has gone beyond the Lafayette mixture and sulphate of zinc! The chapters on chronic urethritis, and on stricture, may, on the whole, be commended as a just and conservative presentation of the subject.

Most of the illustrations in the work are antiquated, and those copied from a well-known atlas of anatomy should be credited to Heitzmann, not Hitzmann. In general, however, the book is typographically satisfactory.

**THE ESSENTIALS OF OBSTETRICS.** By CHARLES JEWETT, M.D., Professor of Obstetrics in the Long Island College Hospital, Brooklyn, New York. Illustrated. New York and Philadelphia: Lea Brothers & Co. 1897.

In this volume of 356 pages Dr. Jewett has embodied what he considers the needs of the student for the acquisition of his groundwork of obstetric knowledge. No one doubts the value of a work of this character, limited as its field is. When the manual, too, is written by one who has so long and favorably been known as a teacher of obstetrics, the worth of its contents is more than doubly enhanced.

The surprising thing in regard to the book is that Dr. Jewett has covered so much ground so well in so little space. We have here anatomy and physiology, embryology, the phenomena of labor, the pathology of pregnancy, of labor, and of the puerperium, and obstetric surgery. Contrary to the title, more than mere essentials are included,

It is only necessary to mention that the scientific feeding of infants, and the chlorinated soda-method of disinfecting the hands, are discussed to show how thoroughly up to date Dr. Jewett's book has been brought.

The black and colored illustrations are admirably chosen, and the book presents a handsome typographic appearance.

**NOTES ON PATHOLOGY.** For Students' Use. By W. A. EVANS, B.Sc., M.D., Professor of Pathology, Medical School of the University of Illinois; Professor of Pathology, Milwaukee Medical College, Etc. Chicago: The W. T. Keener Co., 1897.

As this work is not intended as a treatise on the subject of pathology, but simply as a manual for the student, a detailed description of the subject cannot be expected, but the book should certainly have been a safe guide. There are many sweeping statements without necessary justification, and much carelessness in arrangement and in the literary construction. Parts of the book we can heartily endorse, but where the student is concerned there should be nothing which can be criticized. The book is made with blank pages for notes, alternating with the text, and for advanced workers may occasionally serve as a work for quick reference.

**THE LIVER OF DYSPEPTICS, AND PARTICULARLY THE CIRRHOSIS PRODUCED BY AUTO-INTOXICATION OF GASTRO-INTESTINAL ORIGIN.** By DR. EMIL BOIX. Authorized Translation from the Latest French Edition, by PAUL R. BROWN, M.D., U. S. Army. New York: Putnams, 1897.

AFTER a brief general introduction, Boix discusses in detail the auto-intoxication of gastro-intestinal origin, separate chapters being devoted to the poisons of the alimentary tract, and the conditions which favor their production. These poisons are the result of fermentation; they are much more numerous than is commonly supposed. Among them he includes lactic, acetic, butyric, valeric, propionic, oxalic, the various fatty acids, aldehydes, acetones, the various derivatives of albuminous digestion, indol, skatol, etc. The causes which favor their production are especially motor insufficiency and stagnation of the ingesta.

In Part II. the liver of dyspeptics is considered at full length. Although many objections might be raised against the use of the term "dyspeptics," yet our language possesses no other word which can readily replace it. The body of the work is devoted to a very elaborate study of the hepatic congestion and cirrhosis which occur in the course of gastric diseases; many cases of his own and others are cited. A large amount of original work is described in the next two chapters on the etiology and pathologic anatomy of these lesions. Many striking conclusions are reached which are entirely opposed to currently accepted opinions. Boix's views on the effects of alcohol are especially striking; for these the reader is referred to the book itself which will amply repay a careful perusal.

The translation is excellent and Dr. Brown deserves our thanks for having given English physicians the op-

pportunity of studying this work at first hand. The letter-press and the colored plates reflect credit upon the publishers.

**A PRACTICAL MANUAL OF THE DISEASES OF WOMEN AND UTERINE THERAPEUTICS.** For Students and Practitioners. By H. MACNAUGHTON JONES, M.D., M.C.H., Master of Obstetrics (*Honoris Causa*), Royal University of Ireland; Fellow of the Royal College of Surgeons of Ireland and Edinburgh. Seventh edition, revised and enlarged, with 565 illustrations. New York: William Wood & Co., 1897.

THIS is a handy little volume of 900 pages, and is the result of an effort on the part of the author to "provide an epitome of the teachings and opinions of the greatest living gynecologists." It is profusely illustrated. Its teachings have a strong English flavor, and English and German methods are presented rather than those of French or American operators. The author recognizes the sway of gynecology over the bladder, ureters, and kidneys, and devotes a chapter to Kelly's method of catheterization of the ureters, and the treatment of affections of those organs. That a seventh edition has been necessitated at so early a date indicates the popularity of the work.

**A TEXT-BOOK OF MEDICAL AND SURGICAL GYNECOLOGY.** For the Use of Students and Practitioners. By R. W. GARRETT, M.A., M.D., Professor of Obstetrics and Gynecology in the Medical Faculty, Queen's University, Kingston; Gynecologist to the Kingston General Hospital. Containing over 100 illustrations. Toronto: J. A. Carveth & Co., 1897.

THIS work is designed as a means for ready reference, and an index to the standard writers on the subject of gynecology. The chapters are based upon the notes of the author from which he has given his lectures to a medical class. These notes have been extended so that the volume may be of service to the general practitioner. The author not only presents his own views, but also those of the standard authorities on the various subjects discussed. The volume consists of 419 pages, and briefly covers the entire subject.

**A QUIZ MANUAL OF HISTOLOGY, GENERAL AND DENTAL.** By CHARLES B. REED, M.D., Professor of General Histology, Northwestern University Dental School; Assistant Obstetrician, Chicago Lying-In Hospital, Etc.; and FREDERICK B. NOYES, B.A., D.D.S., Professor of Dental Histology, Northwestern University Dental School. Chicago: The W. T. Keener Co., 1896.

THE authors of the little volume before us have published this work as a guide to the student in histology. While we believe that this important branch of medicine can only be satisfactorily studied by individual use of the microscope, still, a book of this kind is of value to the student as an aid in his work. The authors have arranged in compact form all the essential facts to be memorized, and the work is a fairly complete and concise

summary of histology. About one-fifth of the book is devoted to dental histology, which is a unique addition to works of this kind. All in all, the book is a useful one, and is creditable to its authors and publishers.

## THERAPEUTIC HINTS.

**For Contusions.**—Wash the injured part, and then paint twice daily with menthol in collodion (1-8 or 1-4). Pain will be relieved, and the resulting constriction of the vessels diminishes the discoloration and swelling. This treatment should not be used in case of contusion of a joint.

**The Use of Tannoform.**—Both the internal and external employment of tannoform is highly praised. In doses of  $\frac{1}{6}$ -to  $\frac{1}{4}$ -grain it has a rapid and favorable action in the enterocolitis of children, and, following the administration of castor oil, it is of equal service in dysentery. Externally, applied as a powder, it is useful as a remedy for hyperhidrosis, and also for chronic ulcer in which it relieves the pain and energetically stimulates the granulations.

### For Gastric Hyperacidity.—

|   |                |              |       |
|---|----------------|--------------|-------|
| B | Tr. gentianæ   | } aa . . . . | 3 ii. |
|   | Tr. cascarillæ |              |       |
|   | Tr. cardamomii |              |       |
|   | Tr. absinthii  |              |       |

M. Sig. One teaspoonful ten minutes before the two principal meals.

**Iodoform as an Antiseptic.**—In the treatment of infected wounds, furuncles, and gonorrhreal inflammations, this drug is said to have no unpleasant systemic effects, and to be an improvement over iodofrom. It should be used in the form of a powder in gonorrhreal vaginitis, and for urethritis, in the form of a bougie, containing 20 per cent. of the drug.

It may also be employed as a salve, according to the following prescription:

|   |                 |           |           |
|---|-----------------|-----------|-----------|
| B | Iodoform        | . . . . . | gr. xviii |
|   | Bals. Peru.     | } gtt. xv |           |
|   | Lanolini anhyd. |           |           |
|   | Vaselini        |           |           |

M. Ft. ungt. Sig. For external use.

### For Infantile Tetany of Gastro-intestinal Origin.—

|   |                   |           |     |
|---|-------------------|-----------|-----|
| B | Bismuthi salicyl. | . . . . . | 3 i |
|   | Benzonaphthol.    | } 3 ss    |     |
|   | Sacchr.           |           |     |

M. Div. in chart. No. XII. Sig. One powder four times daily.

In conjunction with above administer the following:

|   |                   |           |         |
|---|-------------------|-----------|---------|
| B | Potass. brom.     | . . . . . | gr. xlv |
|   | Chloral hydr.     | } iss     | gr. xv  |
|   | Syr. aurant. cor. |           |         |
|   | Aq. dest.         |           |         |

M. Sig. One teaspoonful three times daily for a child two to three years of age.

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COLUMBIAN  
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"will have satisfactory results in nutrition far into the future, because it is based on merit and proven success in the past."

**I**T IS EARNESTLY RECOMMENDED as a reliable FOOD for NURSING-MOTHERS, INFANTS and CHILDREN;—for INVALIDS and CONVALESCENTS;—for DELICATE and AGED PERSONS. It is not a stimulant nor a chemical preparation; but a PURE, unsweetened FOOD most carefully prepared from the finest growths of wheat, ON WHICH PHYSICIANS CAN DEPEND IN FEVERS AND IN ALL GASTRIC and ENTERIC diseases. It is easily digested, nourishing and strengthening, assists nature, never interferes with the action of the medicines prescribed, and IS VERY OFTEN THE ONLY FOOD THE STOMACH CAN RETAIN.



★ "Physician's sample boxes" sent free, Express-paid, to any physician, (or to whom he may direct.) ★

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# DIURETIN-KNOLL

## A TRUE DIURETIC.

**DIURETIN** is a pure diuretic, and acts by stimulation of the renal cells and renal parenchyma, increasing the flow of urine even in those cases in which the heart muscle no longer responds to the usual cardiac remedies.

**DIURETIN** is indicated in all cases of dropsy arising from cardiac or renal affections.

It possesses *no toxic properties*, and can be administered in large doses for a long period without fear of consequences, or acquirement of a habit.

It is frequently very active even where digitalis, strophanthus, etc., have failed.

The most excellent results are obtained in *cardiac hydrops*, but in *chronic nephritis* also, the action of **DIURETIN** is in most cases superior to that of all other diuretics.

**DIURETIN-KNOLL** is a white powder clearly and readily soluble in distilled water, forming a permanent solution.

The best mode of dispensing it is in a mixture or in capsules, in doses of from 10 to 15 grains.

Sample and Literature free, on application to

**McKESSON & ROBBINS, New York.**

### AFTER THE GRIP, WHAT?

Few diseases are marked by such tedious and unsatisfactory convalescence as is the one known as epidemic influenza. After the acute symptoms have passed away, extreme weakness and prostration remain, persisting for a long time in spite of the ordinary modes of treatment. The patient is left in a condition of general debility altogether disproportionate to the apparent gravity of the affection. Vague neuralgias and mental hallucinations occur, together with an unaccustomed liability to contract other diseases with very slight exposure, or to suffer relapses of this disease. If the patient be a brain-worker he finds it especially difficult to apply himself to his usual tasks. Either physical or mental exertion is followed by profound exhaustion.

Let us now look into the actual condition present, and then we can more intelligently seek an appropriate remedy—not merely a temporary palliative.

The patient has just passed through a serious and violent disease which, although of comparatively brief duration, has profoundly affected the great nerve centers, and from which they naturally can recover but slowly. Through excessive weakness of the nervous supply of the vital organs, their functions are but feebly and imperfectly carried on. How many there are who date the beginning of a permanent state of decline to their attack of La Grippe.

The ordinary tonics—iron, quinine, strychnine, &c.—seem utterly unable to cope with this condition. In fact, it is not

stimulation that the patient needs, as by it he is only led to overtask his strength, and finally finds himself completely broken down. He needs a reconstruction of the worn-out tissues.

The remedy which will be effective, then, must be one that will convey to the tissues the revivifying and vitalizing agent, phosphorus, in its oxidizable and assimilable form. Thus the true vitality of the nerve structure is restored, and with it the healthy function is re-established. The process is not that of stimulation, or whipping up the exhausted powers, but is one of renewing the nutrition of the tissues themselves; hence, it is steady and sure in its progress and permanent in its results. The patient feels that he is gradually recovering his accustomed strength of mind and body.

The one form in which the compounds of phosphorus, as they exist in normal animal cells, can be conveyed to the tissues and there utilized is in the oxidizable form of the hypophosphites of lime and soda, chemically pure. It should be given early, and continued, at appropriate intervals, until the condition has been entirely overcome. Its favorable action in convalescence from acute diseases in general is especially marked in the disease under consideration. By its use many cases of chronic invalidism can be averted, and the susceptibility to intercurrent diseases corrected.

As it is essential to have the agent in an absolutely chemically pure form, McArthur's syrup should be prescribed. This is an agreeable, wholesome syrup, containing only the pure hypophosphites of lime and soda. If you are not already acquainted with it, a full-sized bottle will be sent you, if you will agree to pay express charges. Address, The McArthur Hypophosphate Company, Boston, Mass.